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CENTRAL PROVINCES

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INTRODUCTORY NOTES

NOTES ON TRANSLITERATION

Vowel-Sounds

a has the sound of *a* in 'woman.'
ā has the sound of *a* in 'father.'
e has the vowel-sound in 'grey.'
i has the sound of *i* in 'pin.'
ī has the sound of *i* in 'police.'
o has the sound of *o* in 'bone.'
u has the sound of *u* in 'bull.'
ū has the sound of *u* in 'flute.'
ai has the vowel-sound in 'mine.'
au has the vowel-sound in 'house.'

It should be stated that no attempt has been made to distinguish between the long and short sounds of *e* and *o* in the Dravidian languages, which possess the vowel-sounds in 'bet' and 'hot' in addition to those given above. Nor has it been thought necessary to mark vowels as long in cases where mistakes in pronunciation were not likely to be made.

Consonants

Most Indian languages have different forms for a number of consonants, such as *d*, *t*, *r*, &c., marked in scientific works by the use of dots or italics. As the European ear distinguishes these with difficulty in ordinary pronunciation, it has been considered undesirable to embarrass the reader with them; and only two notes are required. In the first place, the Arabic *k*, a strong guttural, has been represented by *k* instead of *q*, which is often used. Secondly, it should be remarked that aspirated consonants are common; and, in particular, *dh* and *th* (except in Burma) never have the sound of *th* in 'this' or 'thin,' but should be pronounced as in 'woodhouse' and 'boathook.'

Burmese Words

Burmese and some of the languages on the frontier of China have the following special sounds:—

aw has the vowel-sound in 'law.'
ö and ü are pronounced as in German.
gy is pronounced almost like *j* in 'jewel.'
ky is pronounced almost like *ch* in 'church.'
th is pronounced in some cases as in 'this,' in some cases as in 'thin.'
w after a consonant has the force of *uw*. Thus, *ywa* and *pwe* are disyllables, pronounced as if written *yuwa* and *puwe*.

It should also be noted that, whereas in Indian words the accent or stress is distributed almost equally on each syllable, in Burmese there is a tendency to throw special stress on the last syllable.

General

The names of some places—e.g. Calcutta, Bombay, Lucknow, Cawnpore—have obtained a popular fixity of spelling, while special forms have been officially prescribed for others. Names of persons are often spelt and pronounced differently in different parts of India: but the variations have been made as few as possible by assimilating forms almost alike, especially where a particular spelling has been generally adopted in English books.

NOTES ON MONEY, PRICES, WEIGHTS AND MEASURES

As the currency of India is based upon the rupee, all statements with regard to money throughout the *Gazetteer* have necessarily been expressed in rupees, nor has it been found possible to add generally a conversion into sterling. Down to about 1873 the gold value of the rupee (containing 165 grains of pure silver) was approximately equal to 2*s*., or one-tenth of a £; and for that period it is easy to convert rupees into sterling by striking off the final cipher (Rs. 1,000 = £100). But after 1873, owing to the depreciation of silver as compared with gold throughout the world, there came a serious and progressive fall in the exchange, until at one time the gold value of the rupee dropped as low as 1*s*. In order to provide a remedy for the heavy loss caused to the Government of India in respect of its gold payments to be made in England, and also to relieve foreign trade and finance from the inconvenience due to constant and unforeseen fluctuations in exchange, it was resolved in 1893 to close the mints to the free coinage of silver, and thus force up the value of the rupee by restricting the circulation. The intention was to raise

the exchange value of the rupee to *1s. 4d.*, and then introduce a gold standard (though not necessarily a gold currency) at the rate of Rs. 15 = £1. This policy has been completely successful. From 1899 onwards the value of the rupee has been maintained, with insignificant fluctuations, at the proposed rate of *1s. 4d.*; and consequently since that date three rupees have been equivalent to two rupees before 1873. For the intermediate period, between 1873 and 1899, it is manifestly impossible to adopt any fixed sterling value for a constantly changing rupee. But since 1899, if it is desired to convert rupees into sterling, not only must the final cipher be struck off (as before 1873), but also one-third must be subtracted from the result. Thus Rs. 1,000 = £100 − ⅓ = (about) £67.

Another matter in connexion with the expression of money statements in terms of rupees requires to be explained. The method of numerical notation in India differs from that which prevails throughout Europe. Large numbers are not punctuated in hundreds of thousands and millions, but in lakhs and crores. A lakh is one hundred thousand (written out as 1,00,000), and a crore is one hundred lakhs or ten millions (written out as 1,00,00,000). Consequently, according to the exchange value of the rupee, a lakh of rupees (Rs. 1,00,000) may be read as the equivalent of £10,000 before 1873, and as the equivalent of (about) £6,667 after 1899; while a crore of rupees (Rs. 1,00,00,000) may similarly be read as the equivalent of £1,000,000 before 1873, and as the equivalent of (about) £666,667 after 1899.

Finally, it should be mentioned that the rupee is divided into 16 annas, a fraction commonly used for many purposes by both natives and Europeans. The anna was formerly reckoned as 1½*d.*; it may now be considered as exactly corresponding to 1*d.* The anna is again subdivided into 12 pies.

The various systems of weights used in India combine uniformity of scale with immense variations in the weight of units. The scale used generally throughout Northern India, and less commonly in Madras and Bombay, may be thus expressed: one maund = 40 seers; one seer = 16 chittaks or 80 tolas. The actual weight of a seer varies greatly from District to District, and even from village to village; but in the standard system the tola is 180 grains Troy (the exact weight of the rupee), and the seer thus weighs 2·057 lb., and the maund 82·28 lb. This standard is used in official reports and throughout the *Gazetteer*.

For calculating retail prices, the universal custom in India is to express them in terms of seers to the rupee. Thus, when prices change, what varies is not the amount of money to be paid for the

same quantity, but the quantity to be obtained for the same amount of money. In other words, prices in India are quantity prices, not money prices. When the figure of quantity goes up, this of course means that the price has gone down, which is at first sight perplexing to an English reader. It may, however, be mentioned that quantity prices are not altogether unknown in England, especially at small shops, where pennyworths of many groceries can be bought. Eggs, likewise, are commonly sold at a varying number for the shilling. If it be desired to convert quantity prices from Indian into English denominations without having recourse to money prices (which would often be misleading), the following scale may be adopted—based upon the assumptions that a seer is exactly 2 lb., and that the value of the rupee remains constant at 1*s.* 4*d.*: 1 seer per rupee = (about) 3 lb. for 2*s.*; 2 seers per rupee = (about) 6 lb. for 2*s.*; and so on.

The name of the unit for square measurement in India generally is the *bīgha*, which varies greatly in different parts of the country. But areas have always been expressed throughout the *Gazetteer* either in square miles or in acres.

MAP

IMPERIAL GAZETTEER OF INDIA

VOLUME X

Central Provinces.—A Province under a Chief Commissioner, or Local Administration, situated in the centre of the peninsula, and comprising a large portion of the broad belt of hill and plateau country which separates the plains of Hindustān from the Deccan[1]. The Province lies between 17° 47′ and 24° 27′ N. and between 75° 57′ and 84° 24′ E. Its shape from north-west to south-east approximates to that of a rectangle, broader at the lower than at the upper extremity. The extreme length from north to south is 500 miles and the breadth from east to west also about 500 miles, while the area is 113,281 square miles, of which 82,093 are British territory and the remainder held by Feudatory chiefs. The Province is bounded on the north and north-west by the Central India States, and along a small strip of Saugor District by the United Provinces; on the west by the States of Bhopāl and Indore, and by the Khāndesh District of Bombay; on the south by Berār, the Nizām's Dominions, and large *zamīndāri* estates of the Madras Presidency; and on the east by the last, and by the Tributary States of Bengal. The Central Provinces are thus enclosed on nearly every side by Native States, and are cut off geographically from other British Provinces.

Physical aspects.

The Province may be divided from north-west to south-east into three tracts of upland, alternating with two of plain country. In the north-west the Districts of Saugor and Damoh lie on the Vindhyan or Mālwā plateau, the southern face of which rises almost sheer from the valley of

[1] Since October 1, 1903, Berār has been administered by the Chief Commissioner of the Central Provinces. But except where the contrary is expressly stated, this article treats of the Central Provinces without Berār. In 1905 the greater part of Sambalpur District, together with the five Feudatory States of Bāmra, Rairākhol, Sonpur, Patnā, and Kālāhandī, were transferred to Bengal, while the five Feudatory States of Chāng Bhakār, Koreā, Surgujā, Udaipur, and Jashpur were transferred from Bengal to the Central Provinces. The statistics of area and population have been altered to show the effect of these transfers, but the other statistics contained in this article are for the area of the Central Provinces as it stood in 1903-4 before the transfers.

the Narbadā. The general elevation of this plateau varies from 1,500 to 2,000 feet. The highest part is that immediately overhanging the Narbadā, and the general slope is to the north, the rivers of this area being tributaries of the Jumna and Ganges. The surface of the country is undulating, and broken by frequent low hills covered with a growth of poor and stunted forest. Another division consists of the long and narrow valley of the Narbadā, walled in by the Vindhyan and Sātpurā Hills to the north and south, and extending for a length of about 200 miles from Jubbulpore to Handiā, with an average width of twenty miles. The valley is situated to the south of the river, and is formed of deep alluvial deposits of extreme richness, excellently suited to the growth of wheat. Lofty and spreading *mahuā*-trees stud the plain; and its surface is scoured by the numerous and rapid streams which, pouring down from the Sātpurā Hills during the rainy season, have cut for themselves a passage to the Narbadā through the soft soil. South of the valley the Sātpurā range or third division stretches across the Province, in the shape of a large triangle, its base or eastern face extending for 100 miles from Amarkantak to the Sāletekrī hills in Bālāghāt, and its sides running westward for about 400 miles, and gradually approaching each other till they terminate in two parallel ridges which bound on either side the narrow valley of the Tāpti river in Nimār. The greater part consists of an elevated plateau, in some parts merely a rugged mass of hills hurled together by volcanic action, in others a succession of bare stony ridges and narrow fertile valleys, in which the soil has been deposited by drainage. Steep slopes lead up to the summit of the plateau from the plain country on the north and south, which are traversed in all directions by narrow deep ravines, hollowed out by the action of the streams and rivers, and covered throughout their extent with forest. The general elevation of the plateau is 2,000 feet, but several of the peaks rise to 3,500 and a few to more than 4,000 feet. The Sātpurās form the watershed of the plains lying north and south of them; and some of the more important rivers of the Province, the Narbadā, Tāpti, Wardhā, and Waingangā, rise in these hills. Extending along the southern and eastern faces of the Sātpurā range lies the fourth geographical division, the plain of Nāgpur, Chhattīsgarh, and Sambalpur. It is broken in two places by strips of hilly country which run from the Sātpurās in the north to the ranges enclosing it on the south, and is thus divided into three tracts presenting some dissimilar features. The Nāgpur plain, drained by the Wardhā and Waingangā, contains towards the west the shallow black soil in which autumn crops, like cotton and the large millet, *jowār*, which do not require excessive moisture, can be successfully cultivated. This area, mainly comprised in the valley of the Wardhā river, is the great cotton-growing tract of the Province, and at present the most wealthy.

The eastern half of the Nāgpur plain, situated in the valley of the Waingangā, possesses a heavier rainfall and is mainly a rice-growing tract. Its distinctive feature is marked by the numerous tanks which have been constructed for the irrigation of rice, and which have caused it to receive the name of the 'lake country' of Nāgpur. To the east of the Nāgpur plain, separated from it by a belt of hilly country, lies the great plain of Chhattīsgarh, comprising the open country of Raipur and Bilāspur Districts, and forming the upper basin of the Mahānadī river. The Mahānadī flows through the southern portion of the plain, skirting the hills which border it to the south, while its great tributary the Seonāth brings to it the drainage of Raipur. Along the north the Sātpurā range overlooks the low country, the surface of which is an expanse of small embanked rice-fields, sometimes fifty to an acre, separated by ridges of uncultivable gravel. Except for these undulations the level of the plain is generally unbroken; and over large areas there are few trees other than the mango groves adjoining the more important of the frequent clusters of mud-roofed huts which form a Chhattīsgarh village. To the east of Chhattīsgarh lies the plain which forms the middle basin of the Mahānadī, comprising Sambalpur District and the States of Sonpur, Patnā, and Kālāhandī[1]. South of these level tracts lies another expanse of hill and plateau, comprised in the *zamīndāri* estate of Chānda and the Chhattīsgarh Division, and the Bastar and Kānker Feudatory chiefships, nearly touching the Sātpurās on the north, and running south and east till in Kālāhandī it merges into the Eastern Ghāts. This vast area, covering about 24,000 square miles, the greater part of which is dense forest with precipitous mountains and ravines, which formerly rendered it impervious to Hindu invasion or immigration, producing only on isolated stretches of cultivable land the poorest rains crops, and sparsely peopled by primitive Gonds and other forest tribes, was probably until a comparatively short time ago the wildest and least known part of the whole peninsula. In recent years it has been opened up in all directions by good roads, constructed under Government supervision from the funds of the estates through which they pass.

With the exception of the small Vindhyan plateau, the rivers of which flow north to Hindustān, and the narrow valley of the Tāpti in Nimār, practically the whole of the Central Provinces lies in the catchment basin of three rivers—the Narbadā, the Godāvari, and the Mahānadī. The Godāvari itself, however, only skirts the south-western border of Chānda District for a short distance; and it is to its tributaries, the Prānhita, formed by the junction of the Wardā and Waingangā, and the Indrāvati and other rivers from Bastar, that the important position of this river in the drainage system of the Province

[1] This area, comprising Sambalpur District and five adjoining Feudatory States, was transferred to Bengal in 1905.

is due. Of the rivers a larger proportion of whose course lies in the Province, the Narbadā, Mahānadī, Wardhā, and Waingangā are the chief, all of these having a length of some hundreds of miles within its limits. They resemble each other in that their sources and the greater part of their catchment basins lie at a considerable elevation above the sea; and owing to the rapid fall of level, they have cut for themselves deep beds many feet below the surface of the country which they drain. In the rainy season they become swift torrents; but when dry weather sets in they rapidly dwindle to a chain of stagnant pools, connected by an insignificant streamlet trickling over masses of rock or meandering through broad wastes of sand.

Though the scenery is on too small a scale to compare in sublimity with that of the Himālayas, it is on the other hand as far removed from the monotony of the plains of Hindustān. The recurring contrast of woodland and tillage and the alternation of hill and valley, wood and river, cannot but be grateful to eyes fatigued by the sameness of dusty Indian plains. In the Narbadā valley during the pleasant winter months the eye may range over miles of green corn land, broken by low black boundary ridges or twisting footpaths. The horizon is bounded on either side by hill ranges which seem to rise abruptly from the plain; but on coming nearer to them, the heavy green of their slopes is found to be divided from the softer hues of the young wheat by broad belts of gravelly soil, carpeted with short sward and dotted with noble trees, recalling the appearance of an English park. On the Sātpurās, the high and abrupt hills—clothed from summit to base with forest, and seamed by the deep courses of the streams, up which the roads twist and turn, disclosing to the traveller here and there a glimpse of the cultivated plain stretching far beneath him, and the plateau with its rolling steppes of basalt alternating with little valleys cultivated like gardens—present a variety of scenery not less attractive. But except at one period of the year the velvety freshness of an English landscape is wanting. During the hot months, the plains lying baked and scorched by the dry heat are as lifeless as a moor under a black frost. Even in the winter, though the wheat-growing tracts retain their freshness of appearance, the rice-fields quickly harden into an expanse of bare yellow stubble. But with the breaking of the monsoon all is changed. The abundant growth of vegetation, in an atmosphere like a hothouse, is so rapid as almost to be imagined perceptible; and the new foliage, clothed in the softest tints of green and glittering with rain-drops, covers the whole surface of a country which a month earlier seemed little better than an arid desert. Nor is the aspect less beautiful in September, when, from some such point as the hill overlooking the Mahānadī at Sambalpur, can be seen miles of continuous fields heavy with irrigated rice, the ripening ears of dark green or light yellow

changing in hue with the passing shadows of the clouds, while in the background wooded hills covered with darker coloured foliage fringe the horizon, and in the clear atmosphere of this season appear to be less than half their real distance away.

The tortuous gorge of white marble through which the Narbadā winds with a deep silent course is now well-known to Indian tourists, but many spots hidden away in corners of little-travelled Districts are as well worthy of a visit. At Amarkantak, where the eastern hills reach their culminating point in a country so rugged and difficult that until fifty years ago scarcely a single European traveller had visited it, the sources of the sacred Narbadā are guarded by a little colony of priests who have reared their temples amid the solitary forests; westwards the caves and wild gorges of the Mahādeo hills are sanctified and made the goal of pilgrims, as the scene where Siva formerly made himself manifest to his worshippers. The group of temples at Muktāgiri in Betūl, though selected by Fergusson as a type of Jain architecture, owe their reputation rather to their picturesque position in a wooded valley at the foot of a waterfall, than to any special degree of art or taste displayed in their construction. And many similar instances could be given.

[1] The six geological formations occurring in the Central Provinces may be arranged in the following order: Alluvium, the Deccan trap, the Gondwāna system, the Vindhyan system, the Transition system, and the Gneissic system. The valley of the Narbadā from Jubbulpore to Hardā is a great alluvial flat, chiefly composed of a stiff reddish, yellowish, or brownish clay, with intercalated bands of sand and gravel. The thickness of the clay seldom exceeds 100 feet, but a boring made near Gādarwāra attained a depth of 491 feet without reaching the base of the alluvial deposits. The deposits have yielded fossils consisting of shells and the bones of both extinct and existing animals, such as the elephant, rhinoceros, and hippopotamus. The only trace of man hitherto found in them consists of a chipped stone scraper or hatchet made of Vindhyan quartzite, unearthed eight miles north of Gādarwāra.

The basaltic or volcanic rocks known as the Deccan trap cover a large area in the Central Provinces, occupying the greater portion of the Districts of Saugor, Jubbulpore, Mandlā, Seonī, Chhindwāra, Nimār, Nāgpur, and Wardhā. They are horizontally stratified; and, between layers of the igneous rock, sedimentary beds containing numerous fresh-water fossils are found, showing that between the successive lava-flows sufficient epochs of time elapsed to allow life to appear again on the surface. The region covered by the volcanic rocks consists usually of undulating plains, divided from each other by

[1] From a note by Mr. Bose of the Geological Survey.

flat-topped ranges of hills. The hill-sides are marked by conspicuous terraces, due to the outcrop of the harder basaltic strata, or of those beds which best resist the disintegrating influences of exposure. Distinguishing features of the trap area are the prevalence of long grass and the paucity of large trees, and the circumstance that almost all bushes and trees are deciduous. The black cotton soil found throughout this tract is believed to have been formed by the denudation of basalt rock, combined with the deposit of vegetable matter.

The Gondwāna system corresponds to the marine older and middle mesozoic, and perhaps the upper palaeozoic formations of other countries, and is chiefly composed of sandstones and shales, which appear to have been deposited in fresh water and probably by rivers. As a general rule, these rocks occupy basin-shaped depressions in the older formations, which sometimes correspond to the existing river valleys. Remains of animals are rare, and the few which have hitherto been found belong chiefly to the lower vertebrate classes of reptiles, amphibians, and fishes. Plant remains are more common, and evidence of several successive floras has been detected. The main areas of Gondwāna rocks in the Central Provinces are in the Sātpurā range, in the basin of the Godāvari in Nāgpur, Wardhā, and Chānda Districts, and in the Bilāspur *zamīndāris* and some of the Feudatory States. The formation is divided into the Upper and Lower Gondwānas, according to the character of the fossils found in them; and each of these is further subdivided into groups, several of which occur in the Central Provinces, but cannot be separately described. The sandstone of the Pachmarhī hills belongs to the Mahādeo group of Upper Gondwānas. The rocks consist chiefly of beds of coarse sandstone and conglomerate, marked with ferruginous bands and attaining a thickness of 10,000 feet. The sandstones form high ranges of hills and often weather into vertical scarps of great height, making conspicuous cliffs in the forest, and contrasting strongly with the black precipices of the Deccan trap and the rounded irregular masses of the more granitoid metamorphic rocks. Scarcely any fossils have been found in these rocks. To the Gondwāna formation also belongs the Barākar group of the Dāmuda series, which furnishes the coal found in Korbā, the Tawā valley, Mohpāni, and the Wardhā valley.

Next in point of age is the Vindhyan series, which consists principally of sandstones, shales, and limestones, and is divided into the Upper and Lower Vindhyans. The Upper Vindhyan rocks in Saugor and Damoh are composed of hard red masses of sandstone, with alternations of shale. There is only one important band of limestone. Extensive stretches of Lower Vindhyan rocks occur in Raipur, Bilāspur, and Bastar; they are composed of quartzitic sandstone, superimposed by blue or purple limestone and shale. The Vindhyan rocks have not

yielded any authenticated fossils, but it is improbable that their deposition was anterior to the existence of life.

The transition or sub-metamorphic formation is believed to be somewhat earlier than the Lower Vindhyans. Rocks belonging to this system, consisting of quartzite, hornstone breccia, and limestone, occur in the western portion of Hoshangābād near Handiā and on the Moran river. Low hills of cherty limestone and breccia are also seen in Narsinghpur, and some strata are exposed in Jubbulpore. Transition rocks underlying the surface strata cover a large area in the Districts of Mandlā, Bhandāra, Bālāghāt, Raipur, and Bilāspur.

Gneissic or metamorphic rocks, the oldest known formation, cover large portions of the plateau Districts, and in the Nāgpur and Chhattīsgarh plains underlie the more recent formations.

[1] Where not under cultivation, the Central Provinces are characterized by a deciduous, sometimes scrubby forest, often mixed with heavy woody climbers. In the extreme south-east is a belt of moist evergreen forest. Teak (*Tectona grandis*) is found over most of the area, while *sāl* (*Shorea robusta*) disappears in the western Districts. *Sāj* (*Terminalia tomentosa*) and *bījāsāl* (*Pterocarpus Marsupium*) are the trees next in importance. The principal bamboo is *Dendrocalamus strictus*. The *tendū* or ebony (*Diospyros tomentosa*), Indian redwood (*Soymida febrifuga*), *giryā* or satin-wood (*Chloroxylon Swietenia*), *shīsham* or rosewood (*Dalbergia Sissoo*), and *kūmār* (*Gmelina arborea*) yield ornamental timbers. *Tūn* or red cedar (*Cedrela Toona*) is found wild and is also cultivated. Sandal-wood (*Santalum album*) is not indigenous, but one or two small plantations have been started in Government forests. The *semur* or cotton-tree (*Bombax malabaricum*) is common, the cotton surrounding the seeds being used to stuff quilts and cushions. The *harrā* (*Terminalia Chebula*) yields the myrabolams of commerce. Among trees conspicuous for their beautiful flowers may be mentioned the *amaltās* (*Cassia Fistula*), with long pendulous racemes of bright yellow resembling the laburnum; the *gangal* (*Cochlospermum Gossypium*), growing on the driest and stoniest slopes with large yellow flowers; the *kachnār* (*Bauhinia variegata*), with large blossoms of four white petals and one pink or variegated; and the *dhāk* or *palās* (*Butea frondosa*), a very common and useful tree in both the forests and the open country, remarkable for its brilliant scarlet orange inflorescence appearing when the tree is quite leafless. Other trees with conspicuous flowers are the *siris* (*Albizzia Lebbek*), with greenish-yellow flowers, much cultivated in avenues and gardens; the graceful *haldu* (*Adina cordifolia*), with yellow blooms; the shrub *sihāru* or *harsinghār* (*Nyctanthes Arbor-tristis*), with fragrant yellowish-white flowers used for garlands; the

[1] From notes by the Director of the Botanical Survey, and Mr. Lowrie of the Forest department.

kusumb (*Schleichera trijuga*), with bright red leaves and flowers, appearing in the hot season; the *tinsā* (*Ougeinia dalbergioides*), with trifoliate leaves and pale rose-coloured flowers; and the shrub *dhūvi* (*Woodfordia floribunda*), with red flowers. Flowering herbaceous plants are few, and the most brilliant shows are found on the trees. Among small trees or shrubs growing in scrub jungle may be mentioned the *achār* or *chironjī* (*Buchanania latifolia*), the graceful *aonla* (*Phyllanthus Emblica*), the *dhāmun* (*Grewia vestita*), and species of *Zizyphus*, *Flueggea*, *Gardenia*, *Carissa*, and *Wightia*. Among creepers the large *maul* (*Bauhinia Vahlii*), whose leaves are used for plates, and the *Butea superba*, with leaves and flowers resembling the *palās*, are perhaps the best known.

Of trees growing in the open country the most important and handsome is the *mahuā* (*Bassia latifolia*) with lofty spreading foliage, while the commonest is the *babūl* (*Acacia arabica*), which specially affects black cotton soils; others are the *reunjā* (*Acacia leucophloea*), the *gūlar* (*Ficus glomerata*), the *karanj* (*Pongamia glabra*), and the *bhokar* (*Cordia Myxa*), with some of the trees already mentioned. Trees planted in the neighbourhood of villages are the fruit-bearing mango (*Mangifera indica*), *jāmun* (*Eugenia Jambolana*), tamarind (*Tamarindus indica*), wild plum (*Zizyphus Jujuba*), and *kavīt* or wood-apple (*Feronia Elephantum*), with the sacred banyan (*Ficus indica*), *pīpal* (*Ficus religiosa*), *bel* (*Aegle Marmelos*), and *nīm* (*Melia Azadirachta*). The bastard date-palm (*Phoenix sylvestris*) is common in some localities, growing along the banks of streams, while the palmyra palm (*Borassus flabellifer*) is also found in the south.

The best grazing grasses are the well-known *darbh* or *dūb* (*Cynodon dactylon*) sacred to Ganesh, which is scarce on black soils; *kel* or *kailā* (*Andropogon annulatus*); *musyāl* (*Iseilema Wightii*); *dhadhāra* (*Iseilema laxum*), the last two being sweet scented when freshly cut; *gunariā* or *gunherī* (*Anthistiria scandens*), the high grass growing on the Baihar plateau; and *kusal* (*Pollinia argentea*), an excellent fodder grass when young. Among other grasses may be mentioned *babel* or *bhābar* (*Pollinia eriopoda*), used locally for rope making and now largely employed in the manufacture of paper; *bharrū* (*Sorghum halepense*), from which reed-pens are made; the *khaskhas* grass (*Andropogon squarrosus*) and the well-known spear-grass (*Andropogon contortus*); *Andropogon Schoenanthus*, which yields the aromatic *rūsa* oil; *kāns* (*Saccharum spontaneum*), the grass which is such an enemy to the wheat cultivator; and *Panicum Crus-galli*, growing round tanks and called the gift of God, as its seeds are gathered and eaten by the poorer classes.

[1] Owing to the extent of its forests, the Province possesses a comparatively rich variety of wild animals. The wild elephant is now found

[1] From notes by Dr. Quinn, Major Sutherland, I.M.S., Colonel Poynder, I.M.S., and Mr. Lowrie and Mr. Dunbar-Brander of the Forest department.

only in one or two of the eastern Feudatory States. The wild buffalo frequents the forests of the eastern and southern Districts, where the rainfall is heavy and swamps and marshes abound. In the rains he is an occasional visitor as far west as Mandlā. The bison (*Bos gaurus*) is found in the east and south, and also on the Sātpurā Hills, preferring usually the higher summits and steep slopes. He is the largest ox in the world, but does not attain to so great a size in the Central Provinces as in Burma. Lions have long been extinct, but it is recorded that a specimen was shot in Saugor in 1851. Tigers and the large and small varieties of leopard occur all over the Province, while the hunting leopard (*Cynaelurus jubatus*) is found in some localities, but is very scarce. The Indian or sloth bear (*Melursus ursinus*) is common, and the wolf is found in small numbers in some Districts. Packs of wild dogs infest the forests and are very destructive to game. Wild hog are very numerous in both forests and open country. The principal deer are the *sāmbar* (*Cervus unicolor*) and *chītal* or spotted deer (*Cervus axis*), which haunt all the forests, the latter however only in the proximity of water. The *bārāsinghā* or swamp deer (*Cervus duvauceli*) is found in the *sāl* forests of Mandlā and the eastern Districts, those of the west being probably too dry for it. The hog deer (*Cervus porcinus*) is stated to be found in the eastern Districts, but this requires confirmation; and the rib-faced or barking-deer (*Cervulus muntjac*) and the mouse deer (*Tragulus meminna*) are comparatively common, the last animal however not being a true deer. Of antelopes, the *nīlgai* or 'blue bull' is found everywhere and the four-horned antelope (*Tetracerus quadricornis*) haunts scrub jungle; herds of 'black buck' roam across the black-soil plains of the trap country; *chinkāra* or 'ravine deer' frequent rocky and waste ground in small parties.

Among game-birds the following may be mentioned, though the list is by no means exhaustive. The great Indian bustard is met in the open country in small numbers, and the lesser florican is common in the northern Districts. Peafowl and red and grey jungle-fowl are numerous, especially in bamboo forests, and the brown and painted spur fowl are found throughout the Province, the former in large numbers. Several varieties of plover, painted and common sand-grouse, painted and grey partridge, and the black partridge in Saugor, the large grey quail, bush quail, rain quail, and button quail, the blue rock and green pigeon, and the imperial pigeon in the south of Chānda are the other principal land game-birds. Of water-birds, flocks of demoiselle crane frequent the vicinity of rivers in the cold season. Duck are numerous on the tanks of the rice Districts, and snipe in the marshy ground surrounding them. The grey and the bar-headed goose visit the northern Districts in small numbers in the cold season, while the *nuktā* or black-backed goose is indigenous. The principal varieties of

immigrant ducks are the shoveller, mallard, gadwall, and pintail, the red-crested, red-headed, and white-eyed pochards, the tufted or golden-eye, the smew or white-headed merganser, the widgeon, which is somewhat rare, and the common teal and blue-winged or garganey teal, while the bronze-capped teal is reported from Damoh. The ruddy sheldrake or Brāhmani and spot-billed duck and the whistling and cotton teal are indigenous. The pintail, fantail, jack, and painted snipe are all fairly common, the last being indigenous.

The principal river fish are the *mahseer* (*Barbus tor*), the *chilwā* (*Chela argentea*), the Indian trout (*Barilius bola*), the *gūnch* (*Bagarius yarrellii*), the Carnatic carp (*Barbus carnaticus*), the Indian gudgeon (*Gotis gyuris*), and the fresh-water shark (*Wallago attu*), which is common in both rivers and tanks. Of fish found principally in tanks the *rohū* (*Labeo rohita*), the *kalbans* (*Labeo calbasu*), the *murrel* (*Ophiocephalus striatus* and *gachua*), and the olive carp (*Barbus chrysopoma*) are the most important.

As regards climate the Districts of the Central Provinces fall into two main divisions. Saugor and Damoh on the Vindhyan plateau, Jubbulpore at the head of the Narbadā valley, and Mandlā, Seonī, Betūl, and Chhindwāra on the Sātpurā uplands enjoy a distinctly lower average temperature than the rest of the Province. This difference is partly to be attributed to the greater elevation of these Districts, and also in the case of Saugor, Damoh, and Jubbulpore to the fact that they receive the westerly winds which blow across Northern India during most of the dry season, but which do not come south of the Sātpurā range. Taking Nāgpur and Jubbulpore as typical examples, the mean difference of temperature in favour of the latter reaches a maximum of 7° during January, February, and March. It falls to 6° in December, 5° in November, 4° in April and October, and 3° in May, while during the four months of the monsoon the variation is only about a degree. The main difference between the climates of the two places is in the cold season, when Jubbulpore has a considerably lower temperature, while in the summer the heat does not become oppressive until the middle of April, or a month later than in Nāgpur. Jubbulpore and the Vindhyan and Sātpurā Districts all experience slight frosts which sometimes do considerable damage to the spring crops, but ice is seldom seen except in the interior of Mandlā and occasionally in other Districts of the Sātpurā plateau. Excluding those already mentioned, the climate of the remaining eleven Districts does not differ materially from that of Nāgpur, except that Narsinghpur and Hoshangābād in the Narbadā valley enjoy a lower temperature in the winter months, as they participate in the cold winds which are prevalent north of the Sātpurā range. The Chhattīsgarh Districts are very slightly cooler than Nāgpur. The mean temperature at Nāgpur in January is 70°, varying between 83° and

56°; in May 96°, varying between 109° and 82°; and in July 82°, varying between 88° and 75°. When the rains have properly set in, the mean temperature falls by 14°, and the fact that this season is not unpleasantly hot constitutes the great advantage of the climate. The variation in temperature is much lower during the rains than at any other season. The maximum shade temperature recorded in the Central Provinces is 119° at Chandā, and the minimum 30° at Pachmarhī.

The annual rainfall of the Province averages 47 inches, varying from 32 inches in Nimār to 62 in Bālāghāt. Pachmarhī with 77 inches is the station having the highest record. The mean for Chānda, Bhandāra, Bālāghāt, and the three Chhattīsgarh Districts, where rice is the principal crop, is 55 inches. Mandlā, Damoh, and the three Narbadā valley Districts receive 50 inches or more, and the other Districts under 50 inches. Of the annual Provincial total, 34 inches are received during the months of June, July, and August, more than 10 inches during September and October, and about 3 inches in the other seven months. The bulk of the rainfall is received from the Arabian Sea current of the south-west monsoon, but cyclonic storms advancing from the Bay of Bengal also give rain to the rice Districts in the east. The normal date of the breaking of the monsoon in the Central Provinces is June 10, while the rainfall caused by the advance of the south-west monsoon usually ceases in the second or third week of October. During November and December isolated falls are received from the retreating current of the south-west monsoon, but these are usually lighter in the Central Provinces than in Northern India. In January and February slight storms may occur advancing from the north-west, and are somewhat more frequent in the north than in the south of the Province. Any rain which may be received during the hot-season months is as a rule due to purely local conditions, masses of hot air being raised by the action of the wind to a sufficient height to produce condensation. About an inch of rain only is, as a rule, received during the hot season. During the last 36 years the average rainfall of the Province has five times been below 40 inches, but the harvests are dependent rather on a favourable distribution than on the total amount received. Hailstorms sometimes occur in the cold-season months, particularly in the northern Districts.

History.

Over great part of the Central Provinces the dawn of the epoch of authentic history may be placed at a period not much more than three centuries ago. To the people of Northern India it was known as Gondwāna, an unexplored country of inaccessible mountains and impenetrable forests, inhabited by the savage tribes of Gonds from whom it took its name. The Musalmān expeditions organized for the invasion of the Deccan thus ordinarily left the forests of Gondwāna to the east, and traversed the Narbadā

valley through the pass commanded by the famous hill fort of Asīrgarh. But Gondwāna was not entirely outside the range of adventurous exploration in the early heroic ages of Hinduism. The Rāmāyana represents Rāma as traversing the forest of Dandaka, extending from the Jumna to the Godāvari, on his way to the hermitage of Sutikshnā at Rāmtek near Nāgpur. In the course of centuries a number of Rājput principalities were established, and a considerable portion of the open country was subjected to their authority. Our knowledge of these is mainly derived from coins, a few inscriptions on copper or stone, the ruins of some ancient cities, and incidental statements in the ballads of Rājput annalists. The existence of one of Asoka's rock edicts at Rūpnāth in Jubbulpore proves that his empire embraced this portion of the Central Provinces. Inscriptions at Eran in Saugor District in the fourth and fifth centuries A.D. show that Eran and the surrounding country were included in the dominions of the great Gupta dynasty of MAGADHA, and shortly after fell under the rule of the White Hun Toramāna. From certain inscriptions found in Seonī and the Ajanta caves, it has been concluded that the Vākātaka dynasty was ruling over the Sātpurā plateau and the Nāgpur plain from the third century A.D., the name of the perhaps semi-mythical hero who founded it being given as Vindhyāsakti. The capital of these princes is supposed to have been at Bhāndak in Chānda, in ancient times a considerable town. A portion of the Nāgpur plain, comprising Nāgpur and Wardhā Districts, belonged to the old Hindu kingdom of Vidarbha (Berār), which was in existence during the second century B.C.; and these Districts subsequently passed successively to the Andhra dynasty of the Telugu country (A.D. 113) and the Rāshtrakūta Rājputs of the Deccan (A.D. 750–1087). In the north of the Province the Kalachuri or Chedi dynasty of Haihaya Rājputs ruled over the upper valley of the Narbadā, with their capital at Tripura or Karanbel, where the village of Tewar now stands near Jubbulpore. They used a special era in dating their inscriptions, which points to the establishment of their power in the third century A.D.; but nothing is known of the line before the ninth century, and it is last referred to in an inscription dated 1181. From the ninth to the twelfth centuries Saugor and Damoh were probably included in the territories of the Chandel Rājput princes of MAHOBĀ. At about the same period the present fortress of Asīrgarh was held by Chauhan Rājputs. The Paramāra kingdom of MĀLWĀ may have extended over the western part of the Narbadā valley between the eleventh and the thirteenth centuries; and an inscription found at Nāgpur and dated 1104–5 shows that at least one Paramāra king, Lakshman Deva, included the Nāgpur plain within the circle of his dominions. In Chhattīsgarh another Haihaya Rājput dynasty, perhaps akin to the rulers of Chedi, established itself

at Ratanpur, and extended its authority over the greater part of the territory included in the present Districts of Raipur and Bilāspur.

The inscriptions carry us down to the eleventh or twelfth century, after which there is a blank until the rise of the Gond powers in the fifteenth or sixteenth. The earliest Gond kingdom to emerge into prominence was that of Kherlā near Betūl. It first appears in 1398, when Narsingh Rai, Rājā of Kherlā, is said by Firishta to have had great wealth and power, being possessed of all the hills of Gondwāna and other countries. He took part in the wars between the Bahmani kings and those of Mālwā and Khāndesh. His territories were finally invaded by Hoshang Shāh, king of Mālwā, and Narsingh Rai was defeated and slain at the head of an army of 50,000 men, a large booty, including eighty-four elephants, falling to the victors. In the sixteenth century Sangrām Sāh, the forty-seventh Rājā of the Gond line of Garhā-Mandlā, issuing from the Mandlā highlands, extended his dominion over fifty-two *garhs* or districts, comprising Saugor, Damoh, and possibly Bhopāl, the Narbadā valley, and Mandlā and Seonī on the Sātpurā highlands. The Mandlā dynasty is believed to have commenced about A.D. 664 with the accession of Jādho Rai, a Rājput adventurer, who entered the service of an old Gond chieftain, married his daughter, and succeeded him on the throne. But it remained a petty local chiefship until Sangrām Sāh's accession in 1480. About two hundred years after Sangrām Sāh's time, Bakht Buland, the chief of a Gond principality with its head-quarters at Deogarh in Chhindwāra, proceeded to Delhi, and appreciating the advantages of the civilization which he there witnessed determined to set about the development of his own territories. To this end he invited Hindu artificers and husbandmen to settle in the plain country and founded the city of Nāgpur, to which his successor removed the capital. The Deogarh kingdom extended over the modern Districts of Betūl, Chhindwāra, Nāgpur, and portions of Seonī, Bhandāra, and Bālāghāt. In the south of the Province the walled town of Chānda was the seat of another dynasty which also came into prominence in the sixteenth century, when one of its princes, Bābāji Ballāl Shāh, is stated to have visited Delhi and to have held the position of an independent prince with an army of 1,000 cavalry and 40,000 infantry. The Chānda territories included most of that District and a portion at least of Berār, as their device of a winged lion has been found on the walls of Gāwīlgarh, a stronghold which controlled these lowlands. Thus for a certain period the simultaneous dominion of the three houses of Garhā-Mandlā, Deogarh, and Chānda united almost the whole of Gondwāna under the sway of aboriginal princes. Their subjection to the Mughal emperors was scarcely more than nominal. Though Garhā was included in the lists of Akbar's possessions as a subdivision of

his *Sūbah* of Mālwā, its chiefs were practically so far from the ken of the Mughal court that, except on occasions of disputed succession or other difficulties, their history runs in a channel of its own, unaffected by the imperial policy. And the princes of Chānda and Deogarh, after their first submission to Delhi, seem to have been practically even more independent than their northern neighbour.

Muhammadan conquest penetrated, however, to the north-western portion of the Province during the reign of Sangrām Sāh's successor, whose widow Durgāvati was defeated and killed by a Mughal general in 1564. A *Sūbah* was established at Handiā, which included the western part of Hoshangābād; Saugor, Damoh, and Bhopāl were also occupied during the sixteenth century, and a fort and garrison were maintained at Dhāmoni in the north of Saugor. Nimār formed no part of Gondwāna, and had for the two preceding centuries been included in the Fārūki kingdom of Khāndesh, when in 1600 Akbar captured the fortress of Asīrgarh from the last of the Fārūki kings and annexed Khāndesh. At a later period when Berār also had become a Mughal province, Ashtī and Paunār in Wardhā and Kherlā in Betūl were the head-quarters of Muhammadan officers during the reign of Jahāngīr. The Mughal empire included therefore a strip along the western border of the Province, while the centre was occupied by the Gond kingdoms, and in Chhattīsgarh the old Haihaivansi Rājput dynasty remained in power.

The outlying territories of the Gond Rājās seem to have been distributed among feudatory chiefs, paying a trifling revenue, but bound to attend upon the prince at his capital, with a stipulated number of troops, whenever their services were required. The princes, like the people, were of an easy, unambitious disposition, rarely seeking foreign conquests after their first establishment, and anxious only to stave off by concessions the evil day of dissolution. Under their uneventful sway, the country over which they ruled prospered, while with a liberal policy they invited Hindu immigrants from the north, and entrusted to them the reclamation of the rich land in the Narbadā valley and Nāgpur plain. The group of semi-barbaric chieftains and their retainers, who constituted the fighting strength of a Gond state, possessed only an insignificant power of resistance to anything approaching the character of an organized force. The existence of the Muhammadan empire probably contributed to their stability, the Mughal from his distant court at Agra being content with obtaining from the lords of these rugged hills the nominal submission which was sufficient to prevent any break in the continuity of his vast dominions. But when on the ruins of the empire arose the predatory Marāthā and Bundelā powers who knew no such forbearance, while at the same time the increased wealth of the country had made it worth coveting, the Gonds succumbed almost without a struggle.

During the seventeenth century Chhatarsāl, the well-known Bundelā Rājput chief, wrested a part of the Vindhyan plateau and the Narbadā valley from the Mandlā territories, only himself to lose them shortly afterwards to a stronger power. The first invasion of Bundelkhand by the forces of the Peshwā took place in 1733, and two years afterwards commenced the rule of the Marāthā Pandits of Saugor. In 1742 the Peshwā advanced to Mandlā and exacted the tribute of *chauth* or one-fourth of the revenue, amounting to four lakhs of rupees. From this time the Mandlā kingdom lay at the mercy of the Marāthās, by whom it was finally extinguished in 1781 after a duration of three centuries from the time of Sangrām Sāh. The fall of the Deogarh and Chānda kingdoms was even more rapid. On the death of Chānd Sultān, successor of Bakht Buland, in 1739, disputes as to the succession led to the intervention of Raghujī Bhonsla of Berār. In 1743 he established himself at Nāgpur, reducing the Gond king to the position of a nominal sovereign, and between that year and 1751 effected the conquest of the Deogarh territories, Chānda and Chhattīsgarh. Ratanpur, the capital of the Haihaivansi kingdom, had capitulated without a blow in 1741 on the advance of the Marāthā general Bhāskar Pant; and four years later, with the deposition of the last Rājā, a Rājput dynasty, whose annals go back almost to the commencement of the Christian era, ignominiously ended. In 1740 Raghujī Bhonsla made a raid on the Carnatic, and immediately afterwards commenced a series of expeditions to Bengal, which terminated after a contest of ten years in the acquisition by the Marāthās of Cuttack and the promise of twelve lakhs annually from Alī Vardī Khān as the *chauth* of Bengal. Raghujī I died in 1755, and the Nāgpur kingdom continued to expand under his successors. By the concession of a nominal authority to the Gond Rājā of Deogarh, who conferred the *tika* on the Bhonslas on their accession, and had the right of putting his seal to certain revenue papers, Raghujī had to his hand a pretext for disavowing, if expedient, the rights of the Peshwā as his overlord. In practice, however, reference was usually made to the Poona court in important matters, such as those affecting the succession; and in 1769 Jānojī, the son of Raghujī I, after being defeated by a combination of the Nizām and the Peshwā, was forced to acknowledge the latter's supremacy, and to agree to attend him in person with a contingent of six thousand men whenever called upon, besides paying an annual tribute of five lakhs. In 1785 the next Rājā, Mudhojī, obtained the cession of Mandlā and the upper Narbadā valley from the Poona court in return for a payment of 27 lakhs, and this was followed by the acquisition of Hoshangābād and the greater part of Saugor and Damoh in 1796–8.

The Nāgpur kingdom was now at its greatest extent. Under Raghujī II, Mudhojī's successor, it included practically the whole of the present

Central Provinces and Berār, besides Orissa, and some of the Chotā Nāgpur States. The revenue of these territories was about a crore of rupees. Raghujī's army consisted of 18,000 horse and 25,000 infantry, of which 11,000 were regular battalions, besides 4,000 Arabs. His field artillery included about 90 pieces of ordnance. The military force was for the most part raised outside the limits of the State, the cavalry being recruited from the Deccan, while, besides the Arabs, adventurers from Northern India and Rājputāna were enlisted in the infantry. Up to 1803 the Marāthā administration was on the whole successful. The Bhonslas, at least the first four of them, were military chiefs with the habits of rough soldiers, connected by blood, and by constant familiar intercourse, with all their principal officers. Descended from the class of cultivators, they ever favoured and fostered that order, and though rapacious were seldom cruel to the people. Of Jānojī, the successor of Raghujī I, it is recorded that the king did not spare himself, being referred to in the smallest as well as the greatest matters of state; nor did any inconvenience or delay to the public service arise from this system, for even when not sitting actually in Darbār the Rājā was always accessible to any person who had business to propound to him.

Up to 1803 the relations of the court of Nāgpur with the British had been generally friendly; but in that year Raghujī II was induced to join Sindhia in an alliance against them. The confederate chiefs were decisively defeated at Assaye and Argaon; and by the Treaty of Deogaon Raghujī was obliged to cede Cuttack, Sambalpur, and a part of Berār, and to agree to the permanent appointment of a British Resident at his court. From this time Raghujī, nicknamed by his people the big Haniā, threw off all restraint in his unwillingness to show a reduced front to the world. Not only did he rack-rent and screw the farming and cultivating classes, but he took advantage of the necessities which his own acts had created to lend them money at high interest. All revenue reports of those times teem with accounts of the cruel but ingenious processes by which the Marāthā collectors slowly bled the people.

The period from 1803 to 1818 was perhaps the most disastrous through which the country has had to pass. On the death of Raghujī II in 1816, his son, an imbecile, was soon supplanted and murdered by the well-known Mudhojī, otherwise Appa Sāhib. A treaty of alliance for the maintenance of a subsidiary force by the British was signed in this year. In 1817, on the outbreak of war between the British and the Peshwā, Appa Sāhib threw off his cloak of friendship, and accepted an embassy and title from the Peshwā. His troops attacked the British, but were decisively repulsed at SĪTĀBALDĪ, and subsequently compelled to evacuate Nāgpur. As a result of these battles, the remaining portion

of Berār was ceded to the Nizām of Hyderābād and the territories in the Narbadā valley to the British. Appa Sāhib was reinstated on the throne, but shortly afterwards, intrigues being discovered, was deposed and forwarded towards Allahābād in custody. On the way, however, he made his escape and ultimately fled to the Punjab. A grandchild of Raghujī II was then placed on the throne; and the Nāgpur territories were administered by the Resident, Sir Richard Jenkins, from 1818 to 1830, in which year the young ruler known as Raghujī III was allowed to assume the actual government. During this period the restoration of internal tranquillity under a strong rule, and moderate taxation, gave the sorely harassed country an opportunity to recover, and it attained a fair measure of prosperity. For the next twenty years the methods of administration introduced by Sir Richard Jenkins were broadly adhered to, and the government was fairly successful. Raghujī III died in 1853, and his territories were then declared to have lapsed to the paramount power. The Nāgpur province, consisting of the present Nāgpur Division, with Chhindwāra and Chhattīsgarh, was administered by a Commissioner under the Government of India until the formation of the Central Provinces in 1861.

Of the northern Districts, those parts of Saugor and Damoh which still belonged to the Peshwā were ceded by him in 1817, and the remainder, with Mandlā, Betūl, Seonī, and the Narbadā valley, were obtained from Appa Sāhib in 1818. In 1820 this area, with the designation of 'The Saugor and Nerbudda Territories,' was placed under the administration of an Agent to the Governor-General. On the constitution of the North-Western Provinces in 1835, the Saugor and Nerbudda Territories were included in them. In 1842 occurred the Bundelā rising, which originated in an attempt of two landholders in Saugor District to resist the execution of civil court decrees. They killed a number of police, and being joined by some Gond chiefs burnt and plundered several towns. Order was not restored until the following year, and in consequence of these disturbances the Saugor and Nerbudda Territories were again placed under the political control of an Agent to the Governor-General. This arrangement, however, was not found to be satisfactory, and they were restored to the North-Western Provinces in 1853. After the Mutiny the existence of these two isolated pieces of territory in the centre of India, too remote from the head-quarters of any Local Government to be efficiently administered, led to the determination to form a fresh Province, which was carried into effect in 1861.

During the Mutiny of 1857 the northern Districts alone were seriously disturbed. The native regiments at Saugor rebelled, and that District and Damoh passed out of control, the British retaining only the fort and town of Saugor. The Jubbulpore regiment left the station in

August, 1857; but a column of Madras troops from Kamptee arrived soon afterwards, and desultory operations were undertaken against the rebels in Jubbulpore and Saugor. Isolated disturbances occurred in Seonī, Mandlā, and the Narbadā valley. Sir Hugh Rose marched through Saugor early in 1858, took the forts of Rāhatgarh and Garhākotā, and defeated the insurgents in several engagements, after which order was rapidly restored. A rising had been concerted at Nāgpur by a regiment of irregular cavalry and the turbulent spirits in the city, but was defeated by the vigilance of the civil authorities, aided by Madras troops from Kamptee. Isolated disturbances occurred in the interior of Chānda, Raipur, and Sambalpur, but were soon put down.

The archaeology of the Province is comparatively unimportant. The remains of the archaic period consist of a number of stone circles and a few cromlechs found in Nāgpur and Chānda Districts, which are locally attributed to the Gaolīs. One edict of Asoka exists at Rūpnāth in Jubbulpore District, while four miles away at Tigwān is a temple resembling in plan and general construction that situated to the south of the great *stūpa* of Sānchī, and attributed to the third to fifth century A. D. The group of remains at Eran in Saugor District are of about the same age, but belong to the Gupta style, characterized by flat roofs, probably exemplifying the earliest period of architecture subsequent to the erection of porticoes outside rock-hewn caves. The extensive ruins at Sirpur in Raipur District also date from the same epoch, the temples found here constructed of brick being especially noticeable for the skill displayed in their moulding and ornament. The only Buddhist cave-temple is at Bhāndak in Chānda, but it is not very ancient, and probably belongs to the declining period of Buddhism. The finest temples in the Province belong to the period of A. D. 700 to 1200, designated as the mediaeval Brāhmanic. Good specimens of this style exist at Māndhāta, Mārkandi, Seorīnārāyan, and Bhoram Deo in the State of Kawardhā, and are distinguished for their size and richness of ornament. The class of temples called Hemādpanti (see BOMBAY PRESIDENCY), built of large slabs of stone without mortar, are of about the same period, and are found in several Districts. They are locally attributed to a magician called Hemādpant, who is said to have built several hundred temples in pursuance of a vow, in a single night, with the aid of demons. The period following the twelfth century and the era of the Muhammadan conquest is represented by few structures worthy of mention. A large number of modern temples are found in Ratanpur, mainly constructed of brick and showing strong signs of Muhammadan art, especially in the use of radiating domes and arches. Some beautiful temples have recently been erected in Nāgpur, Jubbulpore, and Hoshangābād, modelled on old patterns, but most of them

following a hybrid style of architecture. Ancient and modern Jain temples are found in several localities in the northern Districts; the former are now almost all in ruins, but their sculptured fragments indicate that they were finely built. Of the modern temples the most important collection is at Kundalpur in Damoh, where there are more than fifty. The only remains of Muhammadan architecture of any value are at Burhānpur, and consist of two mosques belonging to the sixteenth century. They are plainly built, but produce a pleasing effect owing to the harmonious symmetry of their proportions. The Gonds have left only a few forts, palaces at Rāmnagar and Garhā of little or no architectural merit, the tombs of the kings of Chānda, which are plain and substantial buildings of heavy aspect, and the city walls of Chānda extending for a circuit of 5½ miles and presenting a very picturesque appearance. The other remains deserving mention are the massive forts built by the Marāthās, Bundelās, and other ruling dynasties in numerous localities, usually having inner and outer walls with large round towers at the corners and at intervals in the wall.

Population.

A general Census of the Central Provinces has been held on five occasions in 1866, 1872, 1881, 1891, and 1901. The population enumerated was just over 9 millions in 1866 and 9¼ millions in 1872. In both years the Census was inaccurate in the remoter tracts, but the development of population was affected by the famine of 1869. In 1881 the population had risen to 11½ millions, an increase of 25 per cent. on 1872. During the decade the Province had been rapidly recovering from the effects of famine, the seasons being prosperous, and the only checks to the natural increment being epidemics of cholera and small-pox in 1872, 1878, and 1879. A considerable proportion of the increase must, however, be attributed to better enumeration. The population in 1891 was nearly 13 millions, showing an increase of 12 per cent. since 1881. The decade was on the whole prosperous, though marked towards the end by some seasons of slight scarcity and high prices culminating in a very unhealthy year in 1889. In 1901 the population was something less than 12 millions, equivalent to a decrease of 8·3 per cent. since 1891. This period was the most disastrous through which the Central Provinces have had to pass since the Marāthā Wars of the beginning of the century. In 1897 and 1900 occurred two famines of the first magnitude, occasioned by complete failures of both harvests, and affecting nearly the whole area of the Province. In four other years there were partial failures of crops, and in seven out of ten years severe epidemics of cholera. Of the decrease, which exceeded 800,000 persons, between an eighth and a quarter is probably due to emigration to Assam and other Provinces, and the remainder to the effect of these calamities, which the utmost efforts of the Administration could only partially obviate.

The population of the Province in 1901 was 11,873,029. Since the Census the greater portion of Sambalpur District with five Feudatory States has been transferred to Bengal, while five other Feudatory States have been received from that Province, and it is proposed to transfer part of Chānda District to Madras. The corrected total of population is thus 10,847,325. The British Districts contain 9,216,185 persons, or 85 per cent. of the total, and the Feudatory States 1,631,140, or 15 per cent. The density is 96 persons per square mile, being 112 in British Districts and 52 in the Feudatory States. The plain of Chhattīsgarh has the highest rural density in the Province with 170 persons, while some of the large *zamīndāri* estates in Chānda District contain only 10 persons to the square mile.

[1] The Province contains 40,339 inhabited towns and villages, including 55 places with a population of 5,000 persons and upwards. Only one of these, Nāgpur, has a population of more than 100,000; five, Jubbulpore, Saugor, Kamptee, Burhānpur, and Raipur, have more than 20,000; and fifteen between 10,000 and 20,000. The urban population has increased since 1881 by 29 per cent., and now forms 8 per cent. of the total. Its increase may be attributed to the growth of factories and other urban industries, the expansion of rail-borne traffic, the spread of education, and with it the formation of a wealthy and educated class in native society who prefer town life. The average number of persons to a village is 269, which is equivalent to 54 houses at the ordinary rate of 5 persons to a house. The ordinary village is smaller in the Central Provinces than in any part of British India except Burma. The villages are large in open and well-cultivated areas, but small in tracts of hill and forest.

The ages of the population in 1901 may be summarized as follows. About 26 per cent. were under 10 years old; 46 per cent. were under 20 years old; nearly 65 per cent. were under 30; nearly four-fifths under 40; and a little more than 4 per cent. were over 60. Some noticeable changes in the age constitution occurred between 1891 and 1901. In the former year the proportion of children under 10 was 30·7 per cent. of the whole population, as against 26·2 in the latter. The difference must be attributed to the decreased birth-rate and increased mortality of young children, which are the natural effects of bad seasons. On the other hand, at all the age periods between 10 and 40 there were larger numbers of persons in 1901, and the total percentage of population between these ages was 53·3, as against 48·5 in 1891 and 48·9 in 1881.

At the Census of 1901 the registration of vital statistics had not been extended to most of the *zamīndāri* estates in British territory, nor to the Feudatory States. The majority of the *zamīndāris* have since been

[1] The figures in this paragraph have been corrected on account of the transfer of Sambalpur.

brought under registration. The principal statistics of births and deaths are shown below :—

	Population under registration.	Ratio of registered births per 1,000.	Ratio of registered deaths per 1,000.	Deaths per 1,000 from				
				Cholera.	Small-pox.	Fever.	Bowel complaints.	Plague.
1881	8,802,040	41·25	27·4	1·04	0·2	16·4	2·5	...
1891	9,501,401	39·99	32·98	2·24	0·08	20·06	2·19	...
1901	9,710,566	28·83	23·46	0·01	0·63	14·28	1·18	0·001
1904	9,770,567	52·64	30·61	0·08	0·18	14·27	1·14	3·36

The decennial birth-rate for the Province between 1881 and 1891 was 40·8, and between 1891 and 1901 35·7 per 1,000 ; the corresponding death-rates being 32·4 and 37·8 per 1,000. These rates are considerably below those deduced as normal for India in actuarial calculations based on the Census. But it may be noted that between 1881 and 1891 the population deduced from vital statistics differed from that shown in the Census by only 50,000. In 1901 the deduced population was greater than that enumerated in the Census by 450,000. The difference may be partly accounted for by emigration, but is mainly due to deficient reporting of deaths in famine years. In the decade ending 1891 the highest District birth-rate was 43·7 in Saugor, and the highest death-rate 39·1 in Narsinghpur. During the next ten years the highest birth-rate was 41·9 in Chhindwāra, and the highest death-rate 46·4 in Nimār.

Of the total number of deaths registered in twenty years ending 1901 more than 60 per cent. were returned as being from fever, the rates for the two decades being nearly equal. Fever includes, however, a variety of diseases which are inaccurately diagnosed. Cholera accounted for 5 per cent. of the total number of deaths between 1881 and 1891, and for 7 per cent. between 1891 and 1901. Severe epidemics occurred in 1885, 1889, 1891, 1892, 1896, 1897, and 1900, in each of which years more than 20,000 deaths were reported from this disease. The highest number reported was 75,000 in 1900, when there was great scarcity of water. The most severe epidemics of small-pox were in 1889 when 17,500 deaths were reported, and in 1888 with 10,700 deaths. Epidemics have generally occurred at intervals of from three to five years, and have lasted for two years. Plague made its appearance in the Province in 1898, and in each succeeding year has caused a small number of deaths. But 1903 witnessed the first serious epidemic, when 35,000 deaths were reported from this disease, severe outbreaks having occurred in several of the large towns of the Province. A similar epidemic occurred in 1904. The first small and isolated outbreaks were detected at once,

and successfully stamped out by segregation and disinfection of houses; but since the disease has fairly established a foothold in the Province, compulsory measures have been abandoned, as being at once strongly opposed to the opinions of the people, and ineffectual to do more than slightly retard the progress of the disease. Infant mortality is usually severe in the Central Provinces, the deaths of children under five years of age amounting to about 40 per cent. of the total.

In 1901, 183,401 more females were enumerated than males, compared with an excess of 27,825 males in 1891. An examination of the statistics tends to show that women are constitutionally stronger and less liable to succumb to the effects of privation than men. A comparison of the variation in the proportion of the sexes with that of the increase and decrease of population in different units demonstrates that the largest increases in the proportion of women are generally found in those areas which have suffered most severely from famine.

The distribution of the population by sex and civil condition in British Districts is as follows:

Civil condition.	1891			1901.		
	Persons.	Males	Females	Persons	Males.	Females.
Unmarried	4,437,417	2,519,480	1,917,937	3,919,882	2,224,870	1,695,012
Married	5,311,265	2,639,229	2,672,036	4,751,856	2,324,326	2,427,530
Widowed	1,035,612	238,595	797,017	1,204,908	306,788	898,120
Total	10,784,294	5,397,304	5,386,990	9,876,646	4,855,984	5,020,662

In 1901, 47 per cent. of the males were unmarried, 47 per cent married, and 6 per cent. widowed. Of females 35 per cent. were unmarried, 48 per cent. married, and 17 per cent. widowed. The percentages of married and widowed are much larger, and those of unmarried much smaller, than in any European country. The joint family system prevails throughout all grades of society in the Central Provinces, but the members now generally separate on the death of a single common ancestor. Thus brothers live jointly during the lifetime of their father, but separate at his death, as far as household life is concerned, though trade or cultivation is frequently carried on jointly. The Mitāksharā law of inheritance is generally observed, but immigrants from other Provinces frequently adhere to their own law, the Marāthās especially following the Mahārāshtra school.

Of boys, 21 per cent. are married under 15 years of age and more than 50 per cent. under 20. A tendency has arisen among the higher castes to postpone the marriage of boys until their education has been completed. The age of marriage of girls is much earlier than that of boys, and 11 per cent. are married under 10 years of age. Between

10 and 15, about half the total number of Hindu girls are married, 20 per cent. of Animists, and 27 per cent. of Muhammadans. The majority of the remainder get married before 20. As a rule, no social stigma is incurred so long as a girl gets married before 12 or even a year or two older. Brāhmans and other high castes now frequently keep their girls unmarried until this age, because, as the bridegroom is older, it is natural to wish that the bride should if possible be somewhat nearer his age. The castes in which infant marriage is most prevalent are Baniās and the higher grade of cultivators, as well as Marāthā Brāhmans in the southern Districts. In some castes, families with a number of children occasionally celebrate two or three marriages at the same time in order to save expenditure; and on such occasions a baby six months old may be given in marriage. Instances occur in which children still in the womb are conditionally betrothed, provided they turn out to be of opposite sex. The actual age at which the marriage of girls under 12 is celebrated is of comparatively small importance, as they do not live with their husbands before they arrive at adolescence.

Marriages are always arranged by the families of the parties, except among some of the Dravidian tribes, where girls do not marry until they are adult, and are allowed to select their own husbands. In such cases unchastity before marriage is said to be not uncommon. The marriage ceremony is elaborate, and presents considerable variation among different classes of the population. The essential portion of it is usually that the couple walk seven times round a sacred pole erected in the middle of the temporary shed in which marriages are always held, the bridegroom usually following in the footsteps of the bride for the first four perambulations, and the bride in those of the bridegroom for the last three. Brāhmans perform the marriage ceremony of all the higher castes; but in the lower castes the *sowāsa* or the husband of either the bridegroom's sister or his paternal aunt officiates as priest, his wife also performing certain minor ceremonies. Among the Jains marriage is little more than a civil contract. The celebration of marriages is the leading event of Hindu social life, and the sums expended on both sides are usually equivalent to several months' income of the families.

The returns of the Census of 1901 show 1,040 married women to every 1,000 married men. The vast majority of Hindus are content with a single wife, but except in the higher castes no special stigma attaches to the taking of a second. To members of the cultivating castes it is frequently advantageous to marry two wives, as one woman will look after the house while the other works in the fields. The practice is common among such castes as Mālis, Kāchhis, and Kohlīs, who grow flowers, vegetables, sugar-cane, and other irrigated crops entailing much spade work. Among the primitive tribes a man will marry as many wives as he can afford to purchase and keep, and

polygamy is in their case an indication of wealth. Widow marriage is permitted except among a few of the higher castes. In many castes a considerable price has to be paid for a widow to her father's family. The custom of the levirate, by which the younger brother takes the widow of his elder brother to wife, is usually optional, but not binding on the woman in the Central Provinces.

Regular divorce is allowed among all except those castes which do not permit widow marriage. In their case if a woman commits adultery she is finally expelled from her caste, and the husband is free to marry again. Divorce is usually permissible on the initiative of the wife only on the ground of the cruelty or impotence of the husband; but a husband may divorce his wife for any serious fault, such as adultery, incurable disease, culpable disobedience, or extravagance. If a married woman elopes with another man, he is required to repay to the husband the expenditure incurred by him on his wedding, and the divorce is then complete. Resort to the criminal law is unusual unless he refuses to do this, or is a personal enemy.

The diversity of the ethnical constitution of the Province can best be illustrated by a consideration of the statistics of language. The Bundeli dialect of Western Hindī is spoken on the Vindhyan plateau, in the lower Narbadā valley, and in Seonī and Chhindwāra, indicating that the population of this area immigrated from the north-west through Bundelkhand. The Baghelī dialect of Eastern Hindī is the vernacular of Jubbulpore and Mandlā; and this fact may perhaps be taken to show a separate wave of immigration from Oudh or the territories adjoining it, possibly at a much earlier date, and during the predominance of the Chedi dynasty of Jubbulpore already alluded to. Chhattīsgarhī is, as its name implies, a special dialect of Hindī spoken throughout Chhattīsgarh, and akin to the Oudh dialect. Its development probably dates from the rise into power of the Haihaivansi dynasty of Ratanpur. In Betūl, Nimār, and part of Hoshangābād the local speech is the Mālwī dialect of Rājputāna, these areas having been colonized by settlers from Central India, probably in the fifteenth century with the invasion of Hoshang Shāh of Mālwā. Of the whole population, 15 per cent. speak Bundelī, 10 per cent. Baghelī, 27 per cent. Chhattīsgarhī, and 5 per cent. Rājasthānī. If all these languages are grouped as Hindī, together with Urdū (130,415) and some minor dialects, then 6,782,200 persons, or 63 per cent. of the population, are Hindī speakers. Marāthī is the main vernacular of four Districts, Wardhā, Nāgpur, Chānda, and Bhandāra, and is also largely spoken in the southern *tahsīls* of Nimār, Betūl, Chhindwāra, and Bālāghāt. It is the language of 2,200,000 persons, or 20 per cent. of the population. Its distribution indicates the extent to which the country was colonized by immigration from the Deccan and Berār under the Bhonsla dynasty.

Oriyā was spoken by 1,600,000 persons, or 13½ per cent. of the population in 1901, but the transfer of Sambalpur and the adjoining Feudatory States to Bengal has reduced this figure to 292,000. Rather more than 100,000 persons, mainly in the scuth of Chānda District, spoke Telugu in 1901. The cession of three *tāluks* of Sironchā to Madras will diminish this number by nearly one-fifth. The only other languages of any importance are those of the primitive Dravidian or Mundā tribes. They are now represented by 1,100,000 speakers, or rather more than 9 per cent. of the population. Of these, nearly 900,000 speak Gondī and 60,000 Korkū. The numbers returned as speaking these languages represent only 40 per cent. of the total numbers of the tribes, and this fact indicates the extent to which they have abandoned their own speech and adopted the Aryan vernaculars current around them. The following table shows the languages spoken in British Districts in 1891 and 1901:—

Languages spoken.		1891. Number of persons.	1901. Number of persons.
Chief vernaculars of the Province	Hindī	6,702,023	6,111,016
	Marāthī	2,118,614	2,106,872
	Oriyā	685,971	702,635
	Telugu	101,311	93,856
Dravidian dialects		1,007,004	730,097
Mundā dialects		101,750	74,305
Gipsy dialects		23,913	20,210
Other Asiatic languages		36,596	29,664
Non-Asiatic languages		7,112	7,991
Total		10,784,294	9,876,646

The Province has received successive waves of immigration from the territories adjoining it on all sides. In many castes endogamous divisions have grown up, separating the older and newer immigrants. Social position is here in inverse ratio to length of residence in the country, the earlier immigrants being suspected, probably with justice, of interbreeding with the non-Aryan tribes. Among the castes of high social rank, the minority only, and in the case of Rājputs an infinitesimal minority, are regarded as equals by their fellows at home. The population of the Central Provinces is in fact, as social institutions go in India, a new community, and like most new communities its pedigree will not stand too close a scrutiny. As in other agricultural countries, the possession of the land has until recently been the main factor in the determination of social position; and it is remarkable how closely the position of castes as landholders corresponds with their social gradation, and how extensively the ownership of property is concentrated in the higher castes. Brāhmans, Rājputs, Baniās, and Kāyasths are the chief

landholders. Brāhmans number nearly 400,000, Rājputs 350,000, Baniās 130,000, and Kāyasths 29,000. Of the cultivating castes, Ahīrs form nearly 8 per cent. of the population, Kunbīs 4 per cent., Kurmīs 2½ per cent., and Lodhīs 2½ per cent. A large proportion of Ahīrs have abandoned their traditional occupation of tending cattle and taken to agriculture. Among other castes may be mentioned Marāthās, Kohlīs, Gūjars, Dāngis, and Kirārs. The Marāthās, Dāngis, and Lodhīs were formerly ruling castes. Mālis and Kāchhīs, the market gardeners of the community, form nearly 4 per cent. of the population. Two other castes may be mentioned as considerable landowners—Telis or oil-pressers and Kalārs or liquor-sellers, with about 750 villages each. These castes were frequently money-lenders to the Gonds, before the arrival of the Baniās, and have thus acquired their property. The Telis constitute 6 per cent. of the population, but the large majority have abandoned their hereditary occupation and now engage in agriculture or trade. The aboriginal or forest tribes still form nearly a quarter of the whole population, being most numerous in the Sātpurā Districts and the large *zamīndāri* estates and Feudatory chiefships in the east of the Province. Some of them are large proprietors, as the Gonds, Kawars, and Binjhāls. These are mainly comprised in the *zamīndāri* estates held on an impartible and inalienable tenure, but for which fact they would by this time have passed into the hands of money-lenders, as the *zamīndārs* are generally ignorant and improvident. The GONDS number nearly 2,000,000 persons, the KHONDS 168,000, the Kawars 123,000, the BAIGĀS (including Binjhwārs) nearly 100,000, and the KORKŪS 100,000. The impure castes form about a fifth of the total, and are generally the poorest and most depressed class, engaged in labour and weaving country cloth. But the Chamārs (740,000) own a few villages in Chhattīsgarh and the Mahārs (620,000) a few in the Nāgpur country, while the Chhattīsgarhi Chamārs are also largely tenants.

The following table gives the leading statistics of religion for the population of British Districts:

	1891. Number of persons.	1901. Number of persons
Hindus	8,831,199	8,171,211
Animists	1,592,149	1,335,573
Musalmāns	297,604	295,291
Jains	48,644	47,306
Christians	12,979	24,809
Others	1,719	2,456
Total	10,784,294	9,876,646

Of the total population of the Province, 9¾ millions, or 82 per cent., are Hindus, and 1¾ millions, or 14½ per cent., Animists. Of the balance, Muhammadans number about 300,000, or 2½ per cent.; Jains, 48,000; and Christians, 26,000. Pārsīs, Jews, Sikhs, and the members of the Arya Samāj number, severally, a few hundred persons or less. The Hinduism of the Central Provinces is largely tinctured by nature and animal worship, and by the veneration of deified human beings. Even in the more advanced Districts there are usually a number of village gods, for the worship of whom a special priest belonging to the primitive tribes called Bhumkā or Baigā is supported by contributions from the villagers. Khermāta, the goddess of the earth or the village, Marhai Devī, the goddess of cholera, Sītalā Devī, the goddess of small-pox, Nāgdeo, the cobra, Bhainsā Sur, the buffalo, Dulhā Deo, a young bridegroom who was killed by a tiger, Hardaul, a young Rājput prince who was poisoned by his brother on suspicion of loving his wife, and Bhilat, a deified cowherd, are the most common of these. Of the sects of Hinduism, only the Kabīrpanthīs and Satnāmis need be mentioned; they represent respectively the revolt of the depressed castes of Gāndas or weavers and Chamārs or tanners against the tyranny of Brāhmanism and the caste system. Both started with the fundamental ideals of the equality of all men, the abolition of caste, and the worship of one supreme God who required no idols or temples and therefore no Brāhmans: but whereas the Kabīrpanthīs now admit caste and are thus scarcely to be distinguished from an ordinary Hindu sect, the Satnāmis are still militant and have carried their opposition to the Hindu social system into their relations as tenants by refusing to pay rent to their Hindu landlords.

Of the Christians, 4,920 are Europeans, 2,304 Eurasians, and 18,367 native Christians. The number of the latter has nearly trebled since 1891 as the result of missionary enterprise, the increase being partly due to the adoption of famine orphans. Missionary stations of various denominations exist in all Districts and some of the Feudatory States. The principal are the unsectarian American Mission known as the Disciples of Christ, who carry on work in Damoh, Bilāspur, and elsewhere; the United Free Church Mission in Nāgpur, Bhandāra, and Wardhā; the Church of England Zanāna Missions in Nāgpur and Jubbulpore, and the Church Missionary Society in Mandlā; the Mission of the Friends Society at Hoshangābād; the German Evangelical Mission in Raipur; the Swedish Lutheran Mission in Betūl and Chhindwāra; the Methodist Mission in Bālāghāt; and the work of the Roman Catholic Church in Nāgpur, Kamptee, Jubbulpore, Pachmarhī, and Khandwā. The Central Provinces belong to the Anglican diocese of Nāgpur, which embraces also Berār, Central India, and Rājputāna. The greater part of the Province forms the Roman Catholic

diocese of Nāgpur, but portions of it are included in those of Allahābād, Calcutta, and Vizagapatam, while the Nāgpur diocese comprises also Berār and Hyderābād north of the Godāvari.

The Province is essentially agricultural, and the recent development of mining and factory industries, though important, has as yet exercised no appreciable effect on the returns of occupation. About 70 per cent. of the whole population are shown as supported by agriculture, while if to these are added more than 2½ per cent. engaged in the training and care of animals, nearly all of whom are herdsmen, and nearly 3 per cent. dependent on general labour, the greater part of whom subsist mainly by agricultural labour, the proportion rises above 75 per cent. Of the agricultural population, tenants are the most important class, numbering over 4,000,000, while nearly 250,000 persons are landed proprietors. Labourers, including herdsmen, farm-servants, field and general labourers, number 3,000,000. Nearly 300,000 persons, or 2½ per cent. of the population, are engaged in service, principally as barbers, indoor servants, washermen, water-carriers, and sweepers. About 600,000, or 5 per cent., manufacture, collect, and sell articles of food and drink, principally milk and butter, fish, flour, vegetable oil for food, grain, vegetables and fruits, betel-leaf, salt, and tobacco. This includes the very poor classes who grind flour, parch gram, and husk rice, numbering about 90,000 persons. Nearly 120,000 persons are engaged in retailing head-loads of grass, fuel, and cow-dung cakes. The cotton industry supports 400,000 persons, or about 3½ per cent. of the population. Workers in gold and silver are a fairly important class, numbering 60,000, and workers in iron and steel number 100,000. These last are principally the village blacksmiths, who make and mend agricultural implements. About 66,000 persons are engaged in religious services, the majority of whom are supported by charity; and 137,000 are beggars

Ordinarily only two meals are eaten, the first about midday and the second in the evening at 7 or 8 p.m. But cultivators who have to work in the fields require some food in the early morning before going out. This usually consists of the remains of the previous evening meal eaten cold. The midday and evening meals are ordinarily of the same character, consisting of the staple food-grains, which are now mainly rice and *jowār*. Rice is boiled in water with salt and eaten with the various pulses, *mūng*, *urad*, *arhar*, and *tiurā*, which are split and boiled in water. Vegetables and chillies are added when available, large quantities of the latter being consumed. Hot *ghī* or oil of sesamum is often added to vegetables and pulses after they have been cooked, while powdered turmeric is always mixed with pulses, and is supposed to neutralize the bad effects of the organic matter frequently contained in the water. *Gulli* or *mahuā* oil and linseed oil are other substitutes

for *ghī*. Occasionally rice is boiled in butter-milk as a delicacy. *Kodon* and *kutkī* are cooked and eaten in the same manner as rice by those who cannot afford that grain. Where rice is not the staple food, *chapātis* or thin unleavened cakes of ground wheat, gram, or *jowār* are usually substituted for it. Vegetables and pulses are eaten with the *chapātis*. On feast days cakes of wheat and gram are fried in *ghī*. Butter-milk is often drunk in the evenings. *Pān*, betel-leaf and betel-nut, is chewed after the midday meal by all classes in the Marāthā country, and by those who are well-to-do elsewhere. Nearly every one smokes, *bīrīs* or cigarettes rolled in leaves and *chongīs* or leaf pipes being common in the south and east, and *chillams* or clay pipe-bowls without a mouth-piece elsewhere. Most castes will eat flesh, other than that of the unclean or sacred animals, but can rarely afford it.

Nearly all articles of dress are made of cotton cloth. The products of Indian and English mills have almost entirely ousted the old hand-woven cloth in towns, and are rapidly doing so in the country. Except the very poorest classes, every one has a pair of *dhotīs* or loin-cloths which he changes daily, usually taking his bath in the one worn from the day before, and then changing it for the clean one. For the upper part of the body the garments used are a loose shirt, buttoning at the throat, or a short coat reaching to the waist, with a flap folding over in front where it is tied with strings. The long coat made with double flaps folding over the chest, and reaching down to the knees, which was formerly the universal full dress, is now going out of fashion. In the northern Districts in the cold season coats are stuffed with cotton for warmth. The poorer cultivators and labourers frequently leave the upper part of their body bare. Among the educated classes, especially Government servants of all grades, coats cut after the English fashion and made of serge, wool, or *tasar* silk are largely worn. The higher classes now wear also long white trousers instead of loin-cloths, in imitation of the English. The old head-dress was the *pagrī*, formed from a piece of narrow cloth, sometimes 150 to 200 feet long, and twisted into innumerable folds. This is being rapidly ousted by the *dupatta*, or short cloth folded simply by the wearer himself, and formed of *tasar* silk, soft Madras cloth, or nainsook. In Chhattīsgarh the cultivators usually go bareheaded; but in the rest of the Province a man will not be seen outside the house with his head bare, though with the poorer classes any wisp of cloth answers the purpose of a head-covering. Women generally wear a *sārī* or a piece of cloth 18 to 24 feet long by 3 feet broad, secured round the waist and drawn over the shoulders and head. It is usually of hand-woven cloth, dyed red, blue, or green, and with various patterns stamped on it in other colours. English chintzes are also now worn. In the northern Districts the old fashion was to wear a *lahengā*, or skirt, a second cloth being used to cover the

head and upper part of the body; but the *sārī* is now supplanting the skirt. Under the *sārī* is worn a *cholī*, a short sleeveless jacket buttoning tightly at the breast or back. In the house only a short cloth folding round the loins and pulled over the shoulders is worn. Men generally wear white clothes over the body, except in the case of coats, which are of some dark or neutral colour. Shoes are commonly worn, but in the rice Districts they cannot be worn in the fields. In Chhattīsgarh sandals are used for road-work. Women, except of the labouring class, do not usually wear anything on their feet.

The houses of landowners stand in an enclosed courtyard, 90 to 120 feet long and 40 to 60 feet wide, surrounded by a brick wall. The front entrance gate is in the narrower side, and is often roofed in, with side rooms forming the *dalān* or hall for the reception of guests. Above it is a loft in which agricultural implements are kept. Along the sides of the yard are sheds for cattle or grain, and at the back is the dwelling-house, extending along the length of the enclosing wall, and about 15 feet wide. It has front and sometimes back verandas, is divided into rooms, and may be double-storeyed. Frequently a bamboo fence takes the place of the enclosing wall, and the house itself may be of matting plastered with earth. An ordinary cultivator has a similar house without the enclosure or sheds, and a poor cultivator only a two-roomed house with a front veranda. Cattle are frequently kept in one of the rooms. Large oval receptacles of matting covered with earth for holding grain are constructed inside the house. Chimneys are unknown, and smoke escapes through the tiles or thatch. In the more advanced Districts tiled roofs have now become the rule. The furniture consists only of a bed or wooden cot for each member of the family, their bedding, and the cooking and eating vessels. Substantial cultivators have these of brass or bell-metal, and poorer ones of earthenware. The better-class landowners have low wooden stools about six inches high for sitting on, but no chairs, tables, or carpets. The walls are whitewashed twice a year, at the Dewāli and Holī festivals, and the floor is plastered with cow-dung and water once a week.

The majority of Hindus burn their dead, but certain castes bury them. Devotees, such as Gosains, Jangamas, Lingāyats, and others, bury their dead in the sitting posture employed during lifetime for meditating on the deity. Children dying before marriage or investiture with the sacred thread, persons dying of small-pox, cholera, and leprosy, or by an accident, or killed by wild beasts, and pregnant women and women dying in childbirth are buried among certain castes. The forest tribes and some of the poorer castes of Hindus also usually bury their dead, because it is less expensive than cremation. Occasionally when bodies are buried, the bones are subsequently dug up and carried to a sacred river. The Muhammadans always bury their dead. Subject

to the exceptions already mentioned, the general rule among Hindus is to burn the dead, the ashes being thrown into a river or tank.

Hindu children have much the same amusements as English ones, so far as their means permit. Dolls are made of clay and cloth, and occasionally their marriages are celebrated with feasts and fireworks. Swinging and walking on stilts are the pastimes of the month of Shrāwan (July–August), the idea being that the crops will grow as high as the stilts or swing. Kite-flying is a favourite amusement with old and young in the open season. All classes gamble at the Dewāli festival, playing at different games. Many different kinds of dances are practised. The Ahīrs have a stick dance at the Dewāli, and the primitive tribes dance among themselves on festive occasions. Professional singing and dancing girls in towns are generally Muhammadans, and in villages belong to the castes of Bernī and Kolābhuti; these girls will sometimes dance at the Holī for eighteen hours consecutively, being sustained by large quantities of liquor. Representations of the history of Rāma are given before the Dasahra festival, and occasionally the villagers have rude performances of their own, while professional dramatic and circus companies travel about. The villagers sometimes sing together in the evenings, and recitations of the sacred books are held at the houses of well-to-do persons. There are professional castes of acrobats and rope-dancers, snake-charmers, animal-trainers, jugglers, and clowns. Wrestling competitions are held on the Nāg Panchmī or snake-festival, perhaps because the movements of the wrestler resemble the convolutions of a snake. Cock-fighting and ram-fighting are practised in certain Districts, and cattle-races are held in the Nāgpur country.

The ordinary festivals are observed. The Holī corresponds to the European Carnival, and is a festival of spring. The next great festival is the Nāg Panchmī, when the cobra is worshipped, and after it the Rakshābandhan, when the sacred threads are changed. This is the great festival of the Brāhmans. Next comes Polā in the month of Bhādon (August–September), which in some respects resembles a feast of atonement; the villages and all houses are cleaned and the sweepings thrown outside the boundary. Cattle-races are also held. The first fifteen days of Kuār (September–October) are called Pitrpaksh, and during them every one pours libations in memory of his ancestors, while crows, representing the spirits of the deceased, are fed. At the Dasahra a buffalo is sometimes slaughtered in honour of Devī, and the people go out into the fields to see the *nīlkanth*, or blue jay, a very auspicious bird. Twenty days after the Dasahra comes the Dewāli, the special festival of the Baniās, on which they worship a rupee and their account-books. The Hindu commercial year begins from this day. All classes light lamps in their houses so as not to be overlooked when

Lakshmī, the goddess of wealth, passes over them during the night and bestows her gifts. On the Til-Sankrānt, in January, the sun commences its course from the southern towards the northern hemisphere, and at the instant that this happens it is a meritorious act to dive beneath the water of a sacred river. Fairs are consequently held at all convenient places for this purpose.

Hindus of the higher castes have two names, one for ceremonial and the other for ordinary use. The ceremonial name is the real one, but superstition prevents it being used in ordinary life, and a *chaltū* or current name is employed instead. These names fall into several categories. Many are those of gods and goddesses and sacred towns and rivers; a few are the names of jewels; others are taken from the day of the week on which the bearer was born, or from the date of the month, or the month itself or season; some denote the place of birth, and others are given to avert ill luck. Surnames exist only in the case of Marāthās.

Agriculture.

Roughly speaking, four distinct kinds of agricultural land are found in the Province. The first is the heavy black soil which covers the Narbadā valley and the open and level portions of the Vindhyan and Sātpurā plateaux. It is either alluvial, formed by the deposit of decayed vegetable matter, through the agency of rivers and streams, or has resulted from the decomposition of trap or basalt rock, or from a combination of both agents. This land is suited to the growth of wheat, linseed, gram, and other cold-season crops which are dependent on the moisture remaining in the ground from the monsoon rainfall, and on the showers received during the months of December and January. Water is usually found only at a great depth from the surface, and irrigation is consequently little resorted to. Embankments to save erosion and hold up water, and careful tillage, are the main requisites for cultivation. The second class of land consists of shallow black soil, lying in a thin sheet over the surface of the basaltic rock from which it has been decomposed. Land of this description predominates in Nimār, Wardhā, the west of Nāgpur, and the south of Chhindwāra. It is suited for the growth of cotton, *jowār*, and other autumn crops requiring only the light rainfall which these tracts obtain. The soil responds readily to manure, and the application of industry largely increases the out-turn. The third class of land includes the light sandy and stony uplands of the Vindhyan and Sātpurā ranges and the hilly country in the south, where the soil is either very shallow or contains a large proportion of gravel mixed with boulders. Lands of this description are the poorest in the Province: they require long resting fallows, and the cheap millets which they produce, constituting the main food-grain of the aboriginal cultivators who raise them, are entirely dependent on the

rainfall of August and September. The last kind of land consists of yellow and sandy soil, formed from metamorphic or crystalline rock. This is the principal feature of the Waingangā and Mahānadī basins, including the south of Bālāghāt, Bhandāra, and Chānda, and the three Chhattīsgarh Districts, which form the rice lands of the Province. The rainfall is heavy, and the land, though of little natural fertility, responds readily to manure and irrigation.

Agricultural statistics are not compiled for the Feudatory States, which cover 29,435 square miles, or 25½ per cent. of the Provincial area, nor for about 8,000 square miles of the most sparsely populated tracts in the *zamīndāris* where the quantity of cultivated land is so small that it is not worth while to undertake a cadastral survey. Excluding these, in 1903–4, 17,213 square miles, or 22 per cent. of the remaining area, were included in Government forests, 6,980 square miles, or 9 per cent., were classed as not available for cultivation, and 19,368 square miles, or 24½ per cent., as cultivable waste other than fallow. The remaining area, amounting to 35,000 square miles, equivalent to 45 per cent. of the total land available, or 57 per cent. excluding Government forests, was occupied for cultivation. In the most advanced Districts cultivation is very close, reaching in some tracts to 80 per cent. of the whole area available after the exclusion of 'reserved' forests. And though 23,000 square miles are shown in the returns as cultivable waste, this consists mainly of hilly or rocky ground, which it would not be profitable to cultivate, and which should indeed, in the interests of the country, rather remain under jungle or grass than be cleared for the intermittent production of poor rains crops of millet. Considerable quantities of cultivable land must, however, still be available in the *zamīndāris* and Feudatory States. And there can be no question that the produce of the present area could be immensely increased by better and closer cultivation, quite apart from what is generally called high farming.

Out of the total occupied area of 35,000 square miles, about 8,200 square miles are under old and new fallow. Resting fallows are rarely given to good rice and wheat land so long as the resources of the cultivator are sufficient to till them, but much land has lain fallow in recent years owing to the bad seasons and the inroads of *kāns* grass (*Saccharum spontaneum*) in black soil fields. Frequent resting fallows are necessary for the poor soils of the Vindhyan and Sātpurā plateau. Here from 25 to 30 per cent. of the occupied area is normally left untilled, while in the rice country of Chhattīsgarh the proportion is only 20 per cent., and in the closely cultivated cotton-*jowār* country of Nāgpur and Wardhā it sinks to 13 per cent. The present area of fallow is from 1,600 to 2,300 square miles in excess of the normal.

The net cropped area amounts to over 27,003 square miles, having risen from 19,500 square miles since 1867–8. It expanded continuously

up to 1893, but the unfavourable seasons since that date caused it to shrink in 1899–1900 to 2,100 square miles short of the normal. The figures for 1903–4 show that the area cropped in the *mālguzāri* tracts was still 300 square miles less than in 1892–3.

Second crops were grown on about 2,400 square miles in 1903–4, this being the maximum figure recorded up to the present in favourable years. The double-cropped area varies very largely, according as the autumn rain is sufficient or inadequate. The usual method of double cropping is to scatter the seed of the pulses, *urad*, *mūng*, or *tiurā*, and sometimes gram and linseed, in the wet rice-fields either when the rice is nearly ripe for harvest or just after it has been cut. In the northern Districts a catch-crop of rice is sown in the embanked wheat-fields during the rains.

Including double crops, the gross cropped area is now nearly 29,500 square miles. Out of this, about 19,000 square miles are devoted to autumn crops or those sown during the rainy season and reaped at or after its close, and 10,400 to spring crops sown in the damp ground after the rains and reaped towards the end of the cold season. In recent years the popularity of the spring crops has greatly decreased, owing to the number of occasions when the monsoon has failed prematurely and the ground has become too dry to be sown, and over 3,200 square miles have been transferred to autumn crops since 1892–3. Of the total cropped area, about 18,000 square miles are occupied by the four main food-grains, rice, wheat, *jowār*, and *kodon* and *kutkī*; 900 by other cereals; nearly 4,400 by pulses, the most important of which is gram; 3,350 by oilseeds, mainly linseed and *til*; over 3,300 by fibres, practically all of which is cotton; 2,200 by grass and fodder-crops; and 230 square miles by fruits, vegetables, and spices.

Rice (*Oryza sativa*) is the most important crop in the Province, covering about 7,000 square miles in 1903–4, or 24 per cent. of the cropped area. Excluding the *zamīndāris*, its acreage is now nearly 2 per cent. less than in 1892–3. A maximum area of 7,800 square miles was recorded in 1895–6. Rice is sown as soon as the rains have well broken, or towards the end of June, and the harvest lasts from September 15 to December 15 according to the different varieties and the different soils. The varieties of rice are extremely numerous, and are broadly divided into light rice sown on uplands, medium in level ground, and heavy rice in low-lying and irrigated fields. The light varieties are reaped first and the heavy ones last. As the crop requires water to be standing in the fields during a considerable period of its growth, rice is always cultivated in embanked fields. And as the fields must be quite level in order that their surface may be covered, wherever the country is at all undulating they are extremely small, as many as fifty sometimes going to an acre. Rice is grown year after year

without rotation, and manure is necessary to keep up the productive capacity of the fields. The crop is not largely irrigated, except in the Wainganga valley and Sambalpur. Rice can scarcely be damaged by excessive rain unless it is washed out of the ground. In years of short rainfall, besides being liable to wither, it is attacked by grasshoppers. The average amount of seed sown to an acre is 100 lb., and the standard out-turn for the Province is 1,100 lb. or eleven-fold, giving 670 lb. of husked rice.

Wheat (*Triticum sativum*) covered nearly 4,600 square miles, or 15½ per cent. of the cropped area, in 1903–4. The area has decreased from 6,700 square miles since 1893, wheat having been largely supplanted by *jowār*, and also, in the south, by cotton. Sowing commences towards the end of October, when the rains have stopped, and lasts through November and in embanked fields into December. The harvest is gathered from the beginning of March to the middle of April, being perhaps a fortnight earlier in the southern than the northern Districts. Wheat is very seldom manured, as the advantages obtained are not so great as in the case of the autumn crops, and in the black soil of the northern Districts it is grown year after year without manure or rotation. It is frequently sown mixed with a proportion of 5 to 25 per cent. of gram, which is advantageous to the soil, and very occasionally with linseed. It sometimes forms a rotation with *kodon* or with cotton and *jowār*, and frequently with linseed and gram. Between 50 and 60 lb. is sown to an acre in the southern Districts, and 90 to 100 lb. in the north. The standard out-turn is 600 lb.

The large millet *jowār* (*Sorghum vulgare*) now covers nearly 2,800 square miles, or 9½ per cent. of the cropped area. The acreage under it has increased by 39 per cent. during the last decade, at the expense of wheat and linseed. It is mainly an autumn crop, but when the rainfall is heavy it is also grown after the rains. The ordinary seed-time is the first week in July, but in the north it is sometimes put down as soon as the rains break in June. The harvest extends over December and the first part of January. Only from 5 to 10 lb. of seed is sown to the acre, and the out-turn varies between 350 lb. in Mandlā and 700 lb. in Wardhā. *Jowār* is frequently sown with a mixture of the pulse *arhar* (*Cajanus indicus*), in the proportion of one-seventh, or of *mūng* (*Phaseolus Mungo*). In the south it is grown regularly in rotation with cotton, the field being manured when cotton is sown.

Kodon (*Paspalum scrobiculatum*) and *kutkī* (*Panicum psilopodium*) are small grass-like millets grown on the poor highlands of the plateaux. Taken together, they cover 3,600 square miles, or 12 per cent. of the cropped area. The area under them has increased by 70 per cent. since 1892–3, about a third of the increase being due to the inclusion of *zamīndāri* statistics, and the remainder to substitution for rice and

spring crops. *Kodon* is sown broadcast after rice in the beginning of July, and ripens towards the end of October and in November. The seed sown varies from 10 to 20 lb. an acre, and the out-turn is 420 lb., giving 210 lb. of husked grain. *Kutki* is a crop which ripens very rapidly, and can be cut within sixty days after it is sown. It is either sown at the break of the rains and reaped in August to get an early food-supply, or sown towards the end of August and reaped in October. From 5 to 10 lb. of seed is sown per acre, and the out-turn is said to be about 300 lb.

The other cereals cover about 900 square miles. Among these may be mentioned maize (*Zea Mays*), with 200 square miles, which is largely grown in the small garden plots at the back of houses, and the small millet *bājra* or *cambu*, with 85 square miles. Various other small millets also are grown.

The pulse gram (*Cicer arietinum*) covers about 1,450 square miles or 5 per cent. of the cropped area, and the acreage under it has increased by 40 per cent. since 1892–3, mainly at the expense of wheat. Gram is largely sown mixed with wheat in the proportion of 15 to 85, and also with linseed. The mixture is made to lessen the exhausting effect of these crops, as plants of the pea tribe exercise a recuperative effect on the soil by assimilating nitrogen through the roots. For the same reason it is grown in rotation with wheat and linseed. It is sown at the end of October and November with the wheat crop, and is cut either just before it or at the same time. Occasionally gram forms a second crop in black soil or irrigated rice-fields after the rice has been cut. From 60 to 80 lb. of seed is required for an acre, and the out-turn is 550 lb.

The other pulses cover nearly 3,000 square miles. Of these, the most important are *urad* (*Phaseolus radiatus*) and *mūng* (*Phaseolus Mungo*), with a combined area of 1,250 square miles, mainly in Chhattīsgarh. They are grown almost equally as autumn and spring crops, and in the latter case mainly as a second crop after rice, being sown broadcast in the standing grain after the water has been let out of the embanked fields. *Arhar* (*Cajanus indicus*) covers 500 square miles, principally in Nāgpur and Nimār, where the cultivation has increased largely in the last year or two. It is grown in the autumn as a rotation crop in black soil land, and in Nāgpur is largely mixed with cotton and *jowār*. *Tiurā* or *lakh* (*Lathyrus sativus*) occupies 570 square miles, the area under it having decreased by 32 per cent. in the last decade. It is grown in the spring season, mainly in the rice Districts, as a second crop, and is given to cattle. *Masūr* or lentil (*Ervum Lens*) is a spring crop grown under much the same conditions as gram, and also as a second crop after rice. It occupies about 350 square miles, mainly in Jubbulpore, Seonī, Narsinghpur, Betūl, and Chhattīsgarh. Peas (*Pisum arvense*) cover 320 square miles, mainly in Raipur and Bilāspur.

Oilseeds occupy about 3,350 square miles, or 11 per cent. of the cropped area. Of these, the most important is *til* (*Sesamum indicum*), the area under which has nearly doubled during the last decade and is now 1,500 square miles. It is grown both as an autumn and as a spring crop, the proportion of the former being about two-thirds, and it is distributed all over the Province. It is frequently sown mixed with *kodon*, *arhar*, and other crops. About 2 to 6 lb. of seed is sown to an acre, and the standard out-turn is 200 lb. Linseed covers about 1,300 square miles, this being a great deal less than the area under it in 1890. It is a cold-season crop, being sown in the beginning of October and cut in February, a month before wheat. Linseed is grown as a single crop in black soil and is somewhat exhausting, and also as a second crop after rice. About 10 to 20 lb. of seed is sown to the acre, and the out-turn is 260 lb. Of the remaining oilseeds, the most important is *ramtillī* or *jagnī* (*Guizotia oleifera*). This is a rains crop and is grown on very poor soil, with little or no expenditure on cultivation. The out-turn is said to be about 150 lb. per acre. More than 50 square miles are under rape and mustard, which are generally grown in small garden plots.

Cotton now covers 2,000 square miles, or 7 per cent. of the cropped area. It has increased from 1,100 square miles since 1892–3 under the stimulus of high prices, and is still continuing to expand. The Wardhā valley, comprising Wardhā District and the west of Nāgpur, the Sausar *tahsīl* of Chhindwāra, and Nimār District constitute the cotton tract of the Province, though the crop is also grown in Betūl, Narsinghpur, and Hoshangābād. Owing to the bulk of the fibre before it is cleaned and pressed, and the consequent cost of transport, cotton cultivation is not usually found profitable at a great distance from a railway. Cotton is generally sown immediately after the first heavy rain. In the Wardhā valley it is usually mixed with *arhar*, in the proportion of two or three lines of the latter after eight or ten of cotton. The picking goes on from the beginning of November to the beginning of February. From 8 to 16 lb. of seed is required per acre, and the standard out-turn is 240 lb. of uncleaned, yielding 70 lb. of cleaned cotton. Cotton is generally grown in rotation with *jowār* in the Wardhā valley, sometimes with wheat in the third year. It is an exhausting crop, and if sown twice successively the land must be turned up with the heavy plough and manured. The crop is greatly benefited by manure, and the cultivators make every effort to give it as much as possible. The only other fibre grown is *san*-hemp (*Crotalaria juncea*), which covers about 140 square miles.

Of the 230 square miles under orchards, vegetables, and condiments, 30 are devoted to sugar-cane (*Saccharum officinarum*). This crop has greatly decreased in popularity since 1892–3, when it covered 70 square

miles, while for some years about 1870 the area was 140 square miles. With the extension of railway communication, however, the local *gur* or unrefined sugar has been undersold by that imported from Northern and Western India, which can be retailed at a substantially cheaper rate. Condiments and spices cover 60 square miles, those principally grown being betel-vine, turmeric, chillies, coriander, and ginger. More than 70 square miles are under vegetables, of which there is a very large variety. Melons and water-melons are grown on the sandy stretches exposed on the banks of rivers. About 70 square miles included in holdings and 25 excluded from them are shown as occupied by groves and orchards.

The following are the principal agricultural implements. The *nāgar* or country plough has an iron share in spike form penetrating 6 or 9 inches, the body being made of wood. The *bakhar* or paring plough has a horizontal blade about 20 inches long and 4 inches wide, which is dragged across the ground and goes 2 or 3 inches deep. It is generally used in preparing land for sowing, unless the ground is very hard or is much overgrown with weeds. In the northern Districts the seed is sown with the *nāri*, consisting of a single bamboo tube fixed behind the spike of the plough, through which the seed is dropped. In the south the implement used for sowing is the *tifan*; this is formed of a log of wood to which three short iron spikes are fixed, and behind each of them is a hollow bamboo leading down from the sowing bowl at the top. The seed is thus sown simultaneously in three shallow furrows. The *daurā* is an implement used for weeding in the Nāgpur country. It resembles the *bakhar*, but the iron blade is much shorter so that it can pass between two lines of the crop. In the north weeding is done by hand with a spud. The *datāri* is a sort of harrow used in the rice Districts for puddling the earth in the fields and collecting the weeds. For crushing the clods in the rice-fields, a heavy beam of wood is dragged across the field with a man standing on it.

The importance attached to manure varies with the character of the cropping. It is seldom used for the spring crops, and experience has shown that there is little profit in applying manure to unembanked wheat-fields unless wheat is grown in rotation with a rains crop. In rice and still more in cotton-*jowār* cultivation, on the other hand, the advantages of manure are fully appreciated. As a rule, the quantity available is insufficient, the cultivator's only source of supply being the droppings of his cattle. These are saved for manure in the rains, but during the open season are required for fuel-cakes; and even where an abundant supply of wood-fuel is available, it is often said that a mixture of cow-dung cakes is necessary for cooking purposes. The manure is usually stacked in surface heaps and is seldom pitted, much of its benefit being thus lost. Little or no use is made of the urine, though occasion-

ally a cultivator will put down straw or silt to retain it. Green-soiling also is very seldom practised, though crops of *jagni* and *til* are sometimes sown and ploughed in for this purpose. In the rice Districts the silt at the borders of tanks is dug up and placed on the fields and makes a very good manure, while in the cotton-*jowār* tracts flocks of sheep and goats are penned at night on the fields.

The model farm at Nāgpur has existed for many years, and was made an experimental farm for the improvement of agriculture in 1883. Its operations were, however, conducted on a comparatively small scale till 1901, but important developments have taken place since. The staff has been largely strengthened, and two additional farms have been started at Raipur and Hoshangābād. Two cattle-breeding farms have recently been opened in Nāgpur and Hoshangābād for the improvement of agricultural cattle. An agricultural school at Nāgpur is maintained for the instruction of subordinate revenue officials and the sons of landowners, and agricultural associations have been formed in each District for the dissemination of information and the introduction of improved seed and implements. With the same view a number of small demonstration farms have been established, and a monthly Agricultural Gazette in Hindī is now published, which has attained a considerable circulation. In 1905 a separate Director of Agriculture was appointed, and the staff of the department largely expanded by the appointment of experts to initiate systematic research into the prevention of diseases, the destruction of pests, and the general development of the agriculture of the Province in accordance with the most advanced scientific methods. The budget of the Agricultural department for 1906–7 amounts to nearly 4 lakhs.

Broadly speaking, it has been found that of the four main classes of soil and cultivation already described as existing in the Province, the rice lands are the only ones to which the application of irrigation can be expected to offer certain and immediate advantages. Up to the present time there have been no state irrigation works in the Central Provinces, and the area now irrigated is supplied almost entirely from private works, consisting of tanks, river channels, wells, and field embankments. In a normal year the maximum area irrigable is about 1,350 square miles, or only 5 per cent. of the total under crops. To this, however, should be added about 780 square miles of crops grown in lands saturated by means of field embankments. Including this land, 8 per cent. of the normal cropped area may be said to be protected by irrigation works. The area irrigated, however, varies largely from year to year with the character of the rainfall. Of 1,350 square miles actually irrigated, about 1,150, or 88 per cent. of the total, consist of rice irrigated from private tanks; and the remaining 200 of wheat, vegetables, condiments, spices, and sugar-cane irrigated chiefly from wells.

Tank-irrigation is confined almost entirely to rice. Of 1,150 square miles irrigated, about 780 are in the Waingangā valley and 360 in Chhattīsgarh. Over the rest of the Province there is practically no irrigation of rice. British Districts contain about 47,500 tanks, of which 28,500 are to be found in the Waingangā rice Districts, including Seonī and Nāgpur, and 18,500 in Chhattīsgarh. Even in a favourable year the tanks of the Waingangā tract irrigate on an average less than 20 acres each, and those of Chhattīsgarh only about 10 acres. The arrangements for disposing of flood waters are generally deficient, and the banks are often too weak to stand a high pressure. There are only about 65,000 irrigation wells, and the area supplied by them is 88,000 acres, or about 1⅓ acres to each well. Out of the whole number, 15,000 are constructed of masonry and the remainder are small temporary wells, many of which are mere holes in the beds of streams. A permanent well irrigates 3 or 4 acres on an average. Rather more than half the area irrigated from wells consists of wheat and other spring crops, and the balance of sugar-cane and garden crops. The cost of a temporary well is Rs. 25 to Rs. 30, and of a permanent one Rs. 200 to Rs. 500, or more if blasting has to be done. About 50 square miles are irrigated from other sources, mainly by channels for the conveyance of water from rivers or streams; but considering the facilities which exist in many parts of the Province for the construction of small river-fed channels, the area irrigated in this way is remarkably small.

The Irrigation Commission (1901–3) were of opinion that there is ample scope for the extension of irrigation by means of storage tanks under exceptionally favourable conditions in the rice Districts. An Irrigation branch of the Public Works department has now been formed. About 200 projects for storage tanks have been drawn up. Their average capacity is about 300 million cubic feet, and it is estimated that they would protect a total area of 700 square miles of rice at a cost of about 3 crores of rupees, or at the rate of about Rs. 67 per acre. During 1903–4 the construction of tanks and field embankments as state irrigation works was begun departmentally.

Cattle are bred all over the Province, but animals of any quality are reared only in a few localities. The plough-cattle of nearly the whole rice area are miserably poor. They often cost only Rs. 25 or Rs. 30 a pair. The wheat country occupies an intermediate place between the rice tracts with the worst, and the cotton-*jowār* area with the best cattle. The price of bullocks here ranges from Rs. 50 to Rs. 80 a pair. The two good breeds used in the cotton-*jowār* Districts are bred in Nimār and along the southern face of the Sātpurā Hills. The Nimār cattle are generally dark red in colour, with small but well-proportioned bodies, and small sheaths and dewlaps; they are spirited and have strong feet and legs, and are well suited for hard work. A pair costs

from Rs. 100 to Rs. 250. The cattle used in the Wardhā valley are called Gaolao, and are bred in Chhindwāra and in the Arvī *tahsīl* of Wardhā. Animals of this breed are large and white, with full chests and fairly developed forearms, and are well suited for fast work. Their price varies from Rs. 100 to Rs. 300 a pair. Cultivating cattle of these breeds are fed on the stalks of *jowār* and on cotton-seed throughout the working season, and sometimes receives also pulse and oil-cake. In the wheat-growing Districts cultivating cattle are stall-fed only during the working season, when they get a ration of pulse, and in the rice Districts the majority of them usually receive nothing but straw. The Gaolao and Nimāri cattle are bred carefully from selected bulls; but in other areas bulls are seldom kept, and the immature bullocks are allowed to mix with the cows before castration, thus preventing any improvement in the breed.

Buffaloes are bred all over the Province. They are useless for cultivation except in the rice area where water is frequently standing in the fields. In the northern Districts and the Nāgpur country the cows are kept for the manufacture of *ghī* (clarified butter) from their milk, while the young bulls are disposed of cheaply to the caste of Basdewās, who drive them in herds to Chhattīsgarh for sale. A cow buffalo costs from Rs. 50 to Rs. 80, and in Chhattīsgarh the young bulls fetch Rs. 15 to Rs. 20 each. The indigenous breed of ponies is almost entirely worthless, and the efforts made by Government to improve it by the provision of stallions have now been abandoned in favour of cattle-breeding farms. The highest price of a pony is about Rs. 100. Goats and sheep are usually bred by the professional shepherd castes, the former for food, for milk, which Muhammadans and low-caste Hindus drink, and for offerings to the deities, and the latter principally for their wool, from which the ordinary country blanket used by all cultivators is woven. The price of a goat is from Rs. 2 to Rs. 6, and of a sheep from Rs. 2 to Rs. 3.

Grazing is generally adequate, except in a few of the most closely cultivated Districts. The forests of Mandlā, the Baihar *tahsīl* of Bālāghāt, Chānda, and Nimār are well-known grazing grounds, to the first two of which thousands of cattle are sent from all the adjacent Districts during the hot season. Four important annual cattle-fairs are held in the Province—at Singhāji in Nimār, Chhapāra in Seonī, Garhākotā in Saugor, and Rājim in Raipur. Prizes for the best bred animals are offered at these fairs, but it is doubtful whether they have had much result. The principal cattle-diseases are rinderpest (*māta*), anthrax (*ghatsarap* or *phāsī*), foot-and-mouth disease (*khurī* and *baikrā*), and pleuro-pneumonia (*phapsia*). A variety of native remedies are used, several of which are of little value; but strict segregation is very seldom attempted, and cultivators generally say that it is impracticable. A

Civil Veterinary department has been established, supervised by a qualified officer under the Director of Agriculture. Eighteen veterinary dispensaries have been opened at the head-quarters of Districts with subordinate Veterinary Assistants, who also travel in the interior of Districts for the treatment of epidemic disease.

The development of the system of advances under the Land Improvement and Agriculturists' Loans Acts is a feature of recent years. Taking the former kind of loans first, the total amount advanced under the Act of 1871 up to 1883 was only Rs. 50,000, and under the new Act of 1883 up to 1895, 2·7 lakhs. During the famine of 1897 the policy of providing work by giving land improvement loans received a great impetus, a quarter of the principal being usually remitted if the conditions of the grant were carried out. In the second famine of 1900, however, it was considered with justice that the landowners were too impoverished to be asked to expend capital on the provision of work, and a new system was introduced by which free grants were made by Government for the construction of tanks and other improvements. The ordinary purposes for which loans have been made since 1883 are the construction and repair of village tanks, the embankment of wheat-fields, and the destruction of *kāns* grass in the Vindhyan Districts. Between 1895 and 1904, about 18 lakhs was lent. Advances under the Agriculturists' Loans Act of 1884 are made for the purchase of plough-cattle and seed. These advances also began on a very small scale, 3·2 lakhs being lent between 1884 and 1891, or less than half a lakh annually. With the advent of scarcity in the northern Districts in 1893 the amounts advanced rose rapidly, and between 1891 and 1895 15 lakhs was distributed in loans. During 1896–7 the advances were 15 lakhs, and in the famine of 1900 38 lakhs, the greater part of the latter sum being granted without interest. A total of 101 lakhs had been advanced by 1904 in agriculturists' loans.

The rates of interest on private loans are fairly uniform all over the Province, though they have a tendency to be lower in the most advanced Districts, where the cultivators are capable of protecting their own interests. For large sums borrowed on ample security or on pledge of jewellery, the rate varies from 6 to 9 per cent. For ordinary proprietors and the best class of tenants or on mortgage of unencumbered land, the average is 12 per cent. Tenants in moderate circumstances, who may be indebted but not hopelessly involved, pay from 18 to 24 per cent.; while for the poorest classes of tenants and for small unsecured loans to artisans and others, the interest rises to 37½, 50, and even 100 per cent. In the case of grain advanced either for seed, or for subsistence while the crop is maturing, the ordinary rate for wheat and the other cold-season grains is 25 per cent. between sowing and harvest, though it sometimes rises to 50 per cent. in time

of famine. In the Districts where spring crops are mainly grown, the interest on the autumn seed-grains is usually 100 per cent. But in the rice Districts the rate for rice is 25, 37½, or rarely 50 per cent., while for *jowār* the rate in Wardhā is only 25 per cent. and in other *jowār*-growing Districts 50 per cent. The rates for oilseeds are high, ranging from 50 to 100 per cent. Nearly all the large money-lenders and the majority of the smaller ones are Mārwāri Baniās; but many other castes, as Brāhmans, Rājputs, and the castes who own and cultivate land, also participate in the business. Most cultivating proprietors who are in good circumstances prefer to lend grain for seed and subsistence to their tenants, because in addition to its being very profitable they find it much more easy to realize the rents in this case than when their tenants are indebted to another creditor.

The grant of proprietary rights, followed by a large increase in the value of landed property, converted the village landowners, the descendants of the rack-rented headmen of Marāthā times, into a substantial body of men. But the great increase of credit which they suddenly obtained led many of them to indulge in reckless extravagance on marriages and other occasions of display. Inquiries made in 1888 showed that during the previous twenty-five years one-fifth of the village lands had changed hands, half of the transfers being to the money-lending as opposed to the cultivating classes. During the next fifteen years the process cannot fail to have been more rapid, though the famine of 1900 was, owing to the great assistance given by the state, undoubtedly less injurious to the financial condition of the cultivators than that of 1896–7. Government has been alive to the burden of excessive debt thrown on the cultivators, and, to lighten it and to encourage them to make a fresh start, has instituted proceedings in the worst tracts for the voluntary liquidation of debts of both landlords and tenants. These have been in many cases eminently successful, and creditors have agreed to a scheme of repayment of part of the debt in instalments spread over a number of years, the balance being freely forgone. In eight Districts, in part or the whole of which these proceedings have been taken, debts aggregating 1·64 crores have been dealt with and 96 lakhs remitted by creditors.

Rents, wages, and prices.

Economic rent is practically non-existent in the Central Provinces, the rents of all classes of tenants except sub-tenants being fixed by the Settlement officer at the periodical revision of the land revenue. The rental of the previous settlement being taken as a standard, enhancements are based on the increase in the prices of produce, or extension of cultivation, according to a general rate previously determined, which is usually considerably less than that actually warranted by the statistics. During the currency of the settlement, a period of twenty or thirty years, the

landlord can practically raise rents only through the agency of a revenue court, which determines an equitable rate. A sub-tenant is a person holding land from another tenant or in the proprietor's home farm, and is not protected by law. The following maximum and minimum figures of rental represent the average for groups of villages of greatest and least fertility in each area, while the average rental is the average of all the groups. The fertile wheat-growing tract of the Narbadā valley has the highest rental, the figures per acre being maximum Rs. 3-12, minimum 3 annas, average Rs. 1-10-6. Next to this come the rice tracts of Bhandāra and Bālāghāt with a large percentage of irrigation, maximum Rs. 1-12, minimum 4 annas, average Rs. 1-1, while the cotton-*jowār* Districts of Nāgpur and Wardhā have nearly the same rates with a maximum of Rs. 1-15, minimum 7 annas, average 15½ annas. The figures for the Vindhyan plateau Districts are maximum Rs. 1-12, minimum 6 annas, average 15 annas, and for the poorer area of the Sātpurā plateau maximum Rs. 1-12, minimum 3 annas, average 8 annas. The rice country of Chhattīsgarh pays at present a very low rental in proportion to its fertility, the figures being maximum 15 annas, minimum 11 pies, average 10 annas. Owing to the fact that all Districts contain areas of very poor land, the figures of minimum rental do not afford much information. The general rental incidence of the Province is 12 annas, and the average area of a tenant's holding is 12 acres. The rents paid by sub-tenants are usually twice or three times the average rental. In the cotton-growing area during the last few years land has been sublet for ten times the Government rental or more. The custom of paying rents in kind is no longer important, as the policy of Government has been to commute all such rents into cash. But lands are often sublet on a contract for dividing the produce. In such cases the contract is usually that the owner or tenant of the land supplies the bullocks and seed-grain, while the sub-lessee does all the labour. When the crop has been harvested the seed-grain and sometimes the rent is deducted, and the remainder divided equally between the parties. In the *zamīndāris* where shifting cultivation still goes on in the forests, rents are paid in grain on an 'axe' of land, that is, a patch cleared by one family, and amounting to something over an acre.

Wages for agricultural labour are still generally paid in kind, and farm-servants employed by the year receive various perquisites at sowing-time and harvest, so that the determination of their cash equivalents presents much difficulty. Generally it may be said that grain wages have remained constant for a long period, though in recent years and owing to the famines there has been a tendency either to decrease their amount or to substitute inferior varieties of grain. In Nāgpur and Wardhā Districts, owing to the competition of the factories

and mines, wages have risen largely, the cash rates for farm-servants being Rs. 50 to Rs. 80 a year, compared with Rs. 40 in 1890, and Rs. 20 to Rs. 25 in 1860. The corresponding figures for the Narbadā valley are Rs. 60, Rs. 42, and Rs. 25. In other Districts the increase of wages has not more than kept pace with the rise in prices. In Chhattīsgarh farm-servants usually receive a fourth of the produce to be divided between them. In the Sātpurā Districts they get a fifth of the produce. During the year advances of grain are made to them, and these are deducted with interest when they are paid. In other Districts they receive a monthly wage of grain, while in the more advanced tracts cash payments are being substituted for this. The grain wages amount in some of the northern Districts to about 950 lb. a year, and in the Waingangā valley to between 1,400 and 2,000 lb. of unhusked rice. At the wheat harvest labourers earn two or three days' food for a day's work, the rate being one sheaf in twenty or thirty cut. For *jowār*-cutting in Wardhā, 7½ lb. of grain a day is paid. About 10 lb. of unhusked rice and 5 lb. of wheat per day are other typical rates for harvesting. For sowing the crops men are generally employed, and women for weeding and transplanting. Cash wages for men are 3 to 4 annas a day in the south, 2 to 2½ annas in the north, and 1½ to 2 annas in Chhattīsgarh during the busy season. Women get half an anna less than men in Chhattīsgarh, and an anna less elsewhere. Certain village artisans and servants receive payment in kind for services rendered to the cultivators. Those usually found are the Lohār or blacksmith, the Barhai or carpenter, the Nai or barber, the Dhobi or washerman, the Dhīmar or water-bearer, the Chamār or tanner, and the village priest.

At the time of the formation of the Province in 1861 prices were very low, as was natural in a landlocked tract with little or no means of exporting its surplus. Various causes, the chief of which were a great influx of European capital and the abnormal demand for cotton occasioned by the American Civil War, brought about an extraordinary rise in 1863, continuing until 1869, when a general fall set in, which was, however, checked by the opening of railway communication with the seaport towns, and the demand for grain arising from the famine of 1876–8 in Northern India and Madras. Between 1881 and 1891, as shown in Table V (p. 104), prices rose steadily, and in 1891 the increase per cent. on 1862 was given as rice 200, wheat 169, *jowār* 123, and gram 105. During the last decade prices again rose, and reached their highest point in the famine of 1897. They fell in the two following years, and did not rise to quite such a high level again in the famine of 1900. A considerable fall followed, and the averages for 1904 were nearly the same as in 1891. The prices of salt, sugar, yarn, and cotton piece-goods have also decreased. Owing to the improvement of communications, there is now less variation in prices between town and

country, and a more uniform level is maintained throughout the Province. In normal years the prices of the staple crops are almost entirely governed by those obtainable for exports, which depend on the European market. The movement of prices has on the whole been very favourable to the people, for while the articles which they produce, such as the agricultural staples, have largely increased in value, the prices of articles which they consume but do not produce have generally diminished.

The most prosperous part of the Province is the cotton-growing tract of the Wardhā valley. Here, owing to the development of mining and factory industries, a daily labourer is as well-to-do as an ordinary tenant elsewhere, and his condition is in many respects preferable to that of a half-educated clerk. In the Vindhyan plateau and Narbadā valley Districts the standard of living is comparatively high, though the people have recently become impoverished from bad seasons. There is usually a full establishment of village servants whose services are utilized by all cultivators for work which elsewhere they do themselves, while a larger proportion of indoor servants are employed than elsewhere. Shoes and head-cloths are here universally worn, even labourers usually have blankets, and cultivators have quilted cotton coats and caps for the cold season. In Chhattīsgarh and on parts of the Sātpurā plateau the standard of living is still very low. A couple of strips of cloth and perhaps a blanket suffice for the dress of the cultivator, while his food consists of little but a gruel of boiled rice and water. But even here, the last few years would have witnessed a great development had it not been arrested by famine. The annual cost of food for an adult cultivator may be taken as varying from Rs. 15 in the poorest to Rs. 35 in the richest tracts. The cost of clothes for a labourer and his wife of the poorest class in Chhattīsgarh will scarcely be more than Rs. 3, and will consist of two or three cloths without blankets or shoes. The ordinary cultivator will spend from Rs. 5 to Rs. 10 annually in clothing his family. The value of his house will be from Rs. 10 to Rs. 40, and of his furniture Rs. 5 or Rs. 6, while a labourer's house is worth only Rs. 3 or Rs. 4, and his furniture about half this. The condition of the proprietary class varies greatly, some being no better off than ordinary cultivators, while most of them live like a clerk on Rs. 30 to Rs. 40 a month. Their houses and clothes may be inferior to his, but they have richer and better food. A clerk with this income spends about Rs. 20 a year on his own clothes and the same for those of his wife and family, his wife's ornaments having been provided at the wedding. The food of the family will cost Rs. 200 a year or more. He occupies a brick house with several rooms, paying a rent of about Rs. 3 a month, and as much more for the services of a barber, washerman, water-bearer, and sweeper. His furniture may be worth Rs. 75. A visible rise in comfort of living

has occurred in towns. Imported cloth of fine texture is worn, matches are in general use, foreign cigarettes are smoked, kerosene oil is universally used, and lamps with glass chimneys are found in ordinary households. Tea is drunk daily, refined instead of unrefined sugar is eaten, and soda-water is frequently drunk. Many clerks of ordinary means subscribe to vernacular newspapers, and social clubs exist in several towns. Life insurance is increasing in popularity.

Forests.

The area of Government forests in the Central Provinces is shown as 18,734 square miles in the forest returns. The majority of the forests are situated on the northern and southern slopes of the Sātpurā range, and the remainder on the Vindhyan Hills in the north and on the ranges bounding the Nāgpur and Chhattīsgarh plains to the south. The greater part of these latter hills are occupied by forests included in the *zamīndāris* and Feudatory States. In addition to the Government forests, 9,874 square miles of forest are in the hands of *zamīndārs* and village proprietors, while it is estimated that there are about 15,000 square miles in the Feudatory States, this latter figure, however, including scrub and grass. The whole area under forests in the Province is therefore about 44,000 square miles, or 38 per cent. of the total area.

Four main types of forest may be distinguished: the teak, *sāl*, mixed, and bamboo forests. Teak (*Tectona grandis*) occurs either alone or mixed with other species. It is not largely found north of the Narbadā, but extends over the western Sātpurā Districts and the hills south of the Nāgpur plain. The best forests are in the Borī Reserve in Hoshangābād and at Allāpillai in Chānda. In Borī specimens 80 to 100 feet high and 6 feet in girth are obtained. Pure teak forest appears on the lower slopes of the hills, or on alluvial flats along the banks of rivers or at the bottom of ravines. More commonly, and on the higher and middle slopes, teak is mixed with the other species occurring in mixed forests. The teak forests have been very greatly damaged by clearings for cultivation and the indiscriminate fellings of timber contractors before a system of conservation was introduced. The next timber tree in importance is *sāl* (*Shorea robusta*). The *sāl* forests cover a large tract or belt in the east of the Province, commencing in the plateau beneath the Kaimur range in Rewah and extending over Mandlā, the northern frontier of Chhattīsgarh, the hills bounding the valleys of the Mahānadī and its affluents to the Eastern Ghāts and south to the valley of the Indrāvati. The larger proportion of the *sāl* forests are thus situated in the *zamīndāris* and Feudatory States of Chhattīsgarh. The average height of good trees is 60 to 80 feet, with a clear stem to the first branch of 30 to 40 feet, and a girth of 6 to 8 feet. Specimens of 100 feet in height and 10 feet in girth are found in Mandlā. Mixed forest with or without a proportion of teak is the most common

type all over the Province. The most important tree is *sāj* (*Terminalia tomentosa*), and other common and valuable timber trees are *bījāsāl* or *beulā* (*Pterocarpus Marsupium*), *tendū* or ebony (*Diospyros tomentosa*), *lendiā* (*Lagerstroemia parviflora*), *anjan* or *kohā* (*Terminalia Arjuna*), *dhaurā* (*Anogeissus latifolia*), *haldu* (*Adina cordifolia*), *aonlā* (*Phyllanthus Emblica*), *tinsā* (*Ougeinia dalbergioides*), and *giryā* or satin-wood (*Chloroxylon Swietenia*). Among trees which are valuable for other products than timber, the *mahuā* (*Bassia latifolia*) is pre-eminent and very common, while *harrā* (*Terminalia Chebula*), whose fruit gives the myrabolams used for tanning, *achār* (*Buchanania latifolia*), whose fruit called *chironji* is largely used for sweetmeats, and *khair* (*Acacia Catechu*), from the wood of which cutch is prepared, are also important trees. The dry stony hill tops and plateaux and scarped slopes are mainly covered by *salai* (*Boswellia serrata*), a tree of very little value, mixed with stunted specimens of other species. In many places, especially on stretches of flat or undulating land, the forest is very open and poorly stocked, even developing into grass land where areas have formerly been cleared for shifting cultivation. Bamboo forests cover the hill-sides over large areas, sometimes pure, but generally mixed with other species, or forming an undergrowth to the teak.

For administrative purposes the Government forests are divided into two Conservators' charges. Generally, the forests in each District form a Forest division under the charge of a Deputy or Assistant Conservator of the Imperial Forest service or an Extra-Assistant Conservator of the Provincial service. Each division is divided into ranges in charge of an upper subordinate designated a forest ranger. In 1903-4 the Forest Staff comprised 2 Conservators, 9 Deputy-Conservators, 4 Assistant Conservators, 13 Extra-Assistant Conservators, 63 rangers, 58 deputy-rangers, 175 foresters, and 1,657 forest guards.

Up to 1893 the felling of trees was allowed under licence without regulation, but since that date working-plans have been drawn up for the majority of the forests, under which systematic fellings have been introduced. The bulk of the produce required for agriculture and building purposes is disposed of by licence, the purchaser being required to take out a stamped licence supplied by vendors stationed in various villages adjoining the forest. In tracts near the forests, whole villages are allowed to commute for their annual supply of fuel and timber for home consumption on payment of a fixed sum. The collection of various minor products, such as myrabolams, lac, honey, gum, special grasses, *mahuā*, and the hides and the horns of animals dying in the forests, are leased out to contractors. In cases where a large fixed demand can be arranged for, the department itself undertakes contracts for timber. Free grants are sometimes made for works of public utility, such as schools and dispensaries, or for the relief of the occupiers

of a village which has been burnt down. For grazing, licences are issued of two kinds, one covering the open forests of the District, and the other or nomadic licence those of the whole Province. Certain valuable timber areas are closed to grazing, and in addition all 'coupes' are closed for ten years after being worked over.

The supply of produce of all kinds is generally in excess of the local demand, which is largely met from the forests in the hands of private holders, these being worked with much less restriction than the Government forests. The amount of produce removed from the forests in 1903-4 was $3\frac{1}{4}$ million cubic feet of timber, 18 million cubic feet of fuel, $19\frac{3}{4}$ million bamboo stems, and 53,000 tons of grass. The following figures show the average annual revenue, expenditure, and surplus for the decades ending 1890 and 1900, and the years 1901-2 and 1903-4: (1881-90) revenue 10·81 lakhs, expenditure 5·18 lakhs, surplus 5·63 lakhs; (1891-1900) revenue 10·31 lakhs, expenditure 8·92 lakhs, surplus 1·39 lakhs; (1901-2) revenue 11·88 lakhs, expenditure 10·13 lakhs, surplus 1·75 lakhs; (1903-4) revenue 14·04 lakhs, expenditure 10·59 lakhs, surplus 3·45 lakhs. The small surplus realized during the second decade was due to the forests being thrown open in several years for free removal of produce during famine. The necessary restrictions placed on grazing have had the effect of considerably diminishing the income under this head. At the same time there has been a large increase in the area under systematic fire-protection, and the restriction of fellings to specified areas introduced in 1893 caused at least a temporary decline in income.

The relations with the people are generally good, and the number of forest offences is not excessive considering the extent of the forests. The handling of the primitive tribes, who resent interference with their free use of the forest, requires considerable tact and firmness. The labour supply for forest work, except at sowing and harvest time, is generally sufficient; where it is difficult to procure outside labour, forest villages have been established within the boundaries of 'reserved' forest, in order to have at hand a permanent supply of workpeople who are by race, caste, or occupation habituated to the extraction or handling of forest produce. In times of scarcity and famine the forests are thrown open for the free collection of all edible products, and, if necessary, for the removal of fuel, grass, and sometimes bamboos by head-loads in order to employ labour. This concession is valuable, as a large variety of edible products in the shape of flowers, fruits, seeds, gum, leaves, and roots can be obtained by natives accustomed to a jungle life. If grass is scarce, free grazing also is allowed. Besides this, the construction of forest roads and sometimes the cutting of fire-lines is undertaken, and this work affords congenial employment to the primitive tribes, many of whom will not attend ordinary relief works. In the famines of 1897 and

1900 produce to the value of between 3 and 4 lakhs was removed free of charge. In the famine of 1900, when a serious scarcity of fodder was apprehended, the cutting of grass was undertaken as a relief work, and 83,000 tons were cut at a cost of 5 lakhs. The greater part of the 'reserved' forests are now protected from fire, fire-lines being cut all round the protected forest, while for the more valuable areas a special establishment of fire-watchers is employed during the hot season. In 1903-4, 8,153 square miles of forest were protected at a cost varying from Rs. 2 to Rs. 11 per square mile.

Mines and minerals.

Coal-measures occur in various parts of the Province, all belonging to the Barākar group of Gondwāna rocks. They may be classified broadly as situated in the Sātpurā basin, the Wardhā-Godāvari valley, and the Mahānadī valley. The principal fields in the Sātpurā basin are those of Mohpani, Shahpur or Betul, and the Pench valley in Chhindwāra. The Mohpani field, near Gādarwāra in Narsinghpur, is worked by a company. So far as the Shāhpur field has been explored, the outcrops which lie on the south of the Tawā valley do not appear to be of great promise, the coal being inferior and of irregular thickness. In Chhindwara numerous seams have been discovered in several localities varying in thickness from 3 to 14 feet. A recent analysis of the quality of the coal shows that it can be worked profitably, and mining operations have been started with the opening of the railway to Chhindwāra. The Wardha valley field extends for about 285 miles in the valleys of the Wardhā, Prānhita, and Godāvari rivers. The coal has been worked only in a Government colliery at Warorā, but prospecting licences have been taken out for large areas. At Bandar, 30 miles north-east of Warorā, three seams with a maximum thickness of 38 feet have been proved to exist. It is estimated that the Wardhā valley field contains 14 million tons of coal. The Mahānadi basin comprises the Raigarh-Hemgir, Korba, and Mānd coal-fields, which cover an area of not less than 1,000 square miles; the coal seams are sometimes of enormous size, and thicknesses as great as 90 feet at Korbā and even 168 feet at Hemgir have been recorded; but, though including good coal, these are often largely made up of carbonaceous shale. Sometimes, too, the seams die out within surprisingly short distances. A good seam of steam coal and two seams of rather inferior quality have been discovered near Rāmpur, where the field is crossed by the Bengal-Nāgpur Railway. The Mohpāni mines were worked by the Nerbudda Coal and Iron Company from 1862 to 1904, when the Great Indian Peninsula Railway Company purchased them. The output in 1904 was 25,617 tons valued at 1·34 lakhs, and 664 operatives were employed. The Warorā colliery has been worked by Government since 1871, the capital outlay being 15 lakhs. The output in 1904 was 112,319 tons, valued at 5·21 lakhs,

and 1,040 operatives were employed, chiefly men from the United Provinces. There is a large local demand for the coal from the Great Indian Peninsula Railway and the factories of Nāgpur and Wardhā. The present seams at Warorā are, however, nearly worked out[1], and fresh seams at Ballālpur are being tested. The wages of miners in the collieries vary from 5 annas to 10 annas a day, while unskilled coolies receive 3 annas.

Iron ores of good quality occur in Jubbulpore, Mandlā, Narsinghpur, Chānda, Bhandāra, Bālāghāt, Raipur, and Bilāspur, and smaller veins in Saugor and Seonī. The most extensive deposits appear to be in Chāndā, where the Lohāra hill, 3 furlongs long, 200 yards broad, and 120 feet high, is described as consisting of compact crystalline hematite with some magnetic oxide, and the ore is believed to be traceable for a considerable distance. The percentage of iron found in the ores in the more important localities varies from 68 to 73. A prospecting licence has recently been given in Chānda with a view to the establishment of iron-works on modern methods, and licences have also been issued in Raipur and Sambalpur. The ores are worked in several Districts by indigenous methods by the caste of Agariās or iron-workers, who are an offshoot of the Gonds. The best-known centres are Sihorā in Jubbulpore and Tendūkhedā in Narsinghpur. The returns for 1904 show 441 furnaces working, with an output of 2,818 tons of iron. Iron ochre is worked at Katnī in Jubbulpore for the manufacture of paint.

Manganese ores are found in the Districts of Jubbulpore, Chhindwāra, Nāgpur, Bhandāra, and Bālāghāt. A number of prospecting licences and mining leases have been granted in the last four Districts, and during recent years an important mining industry has sprung up. The workings are all from the surface, but fifteen of the quarries have now reached a greater depth than 20 feet and have been brought under the Mines Act. The output of manganese from these was 85,000 tons in 1904, the most important mines being in the Rāmtek *tahsīl* of Nāgpur District. The number of persons employed in the manganese mines in 1904 was 2,010.

Limestone is abundant in Jubbulpore, Chānda, and the Chhattīsgarh Districts, but is exploited only at Murwāra in Jubbulpore, where 16 quarries are situated, all except one being worked by manual labour. These quarries are under the Mines Act. Their output in 1904 was 49,847 tons of lime, valued at about 5 lakhs, and 2,510 persons were employed. Fuller's earth is obtained in another quarry. Excellent stone is obtained from a number of sandstone quarries at Murwāra, and exported in the shape of posts and slabs. Sandstone is quarried for building purposes in many Districts, but statistics of output are not recorded.

[1] The Warorā colliery was closed in 1906.

These minerals are the only ones as yet proved capable of yielding a profit on working, but many others exist. The Mahānadī and several of its tributaries, the Son in Bālāghāt, and other rivers contain auriferous sands, and a few persons earn a precarious livelihood by washing for gold. Argentiferous galena occurs in several localities, samples from Sleemanābād in Jubbulpore and Jogā in Hoshangābād yielding 19 oz. 12 dwt. and 21 oz. 3 dwt. per ton of lead respectively. Prospecting licences have been taken out at both places. Copper ores are known to exist at Chicholi in Raipur, at Sleemanābād in Jubbulpore, at Barmhān in Narsinghpur, and in Chānda and Bālāghāt. Mica occurs in Bālāghāt, Bilāspur, and Bastar, but the plates are too small to be of commercial value. Bauxite, an aluminous ore, is found in Bālāghāt. Graphite or plumbago has been discovered in Raipur and Kālāhandī. Agate pebbles are found in Jubbulpore, and are worked up into various articles of ornament by the local lapidaries.

Arts and manufactures.

With the exception of one or two small industries, the articles manufactured by hand in the Central Provinces are of the simple nature designed to meet the wants of a primitive agricultural population and possess little artistic merit. The principal manufactures are silk-weaving, cotton-weaving, cotton dyeing and printing, gold- and silver-work, brass, copper and bell metal work, and the making of glass bangles. Pottery, bamboo-work, and blanket weaving are of somewhat less importance. These industries are as a rule not in a prosperous condition, owing to the competition of more highly organized methods of manufacture and to changes in fashion.

The silk industry supports 23,000 persons. Imported or mulberry silk is principally woven in Nimār, Nāgpur, and Bhandāra, while the indigenous *tasar* silk is worked in Chānda and Chhattīsgarh. In the former Districts cotton cloths woven with silk borders are the staple product. In Burhānpur these are ornamented with gold and silver lace, and the embroidered cloths produced here were once estimated second only to the precious fabrics of Dacca and Surat, and formed the basis of a lucrative trade with Europe. There is now little demand for the more expensive cloths. The silk-bordered loin-cloths and *sāris* or women's cloths of Nāgpur and Bhandāra are still in large request, and the weavers are fairly prosperous. The *tasar* silk industry shows signs of revival with the facilities recently granted for the cultivation of cocoons in Government forests. Industries connected with cotton now support about 400,000 persons, a decline of 37 per cent. since 1891. Cotton spinning, formerly carried on in every village, is practically extinct as an industry. The low caste Katiās, Mahārs, and Gāndas, who weave the coarser kinds of country cloth from thread purchased at the mills, still find a market among the poorer tenants and labourers.

But, except for the silk-bordered cloths already noticed, the higher classes of natives are taking more and more to the use of English and Indian mill-woven fabrics, which, though less durable, are smoother and cheaper. The number of cotton-weavers is largest in the Districts of the Nāgpur plain, where the crop is principally grown. The trade of the dyer is declining with that of the weaver. The finer cloth is woven with coloured thread. The indigenous madder, safflower, turmeric, and indigo have been supplanted by chemical substitutes imported from Europe. Practically the only woollen article made is the coarse country blanket woven by the shepherd castes, who combine this occupation with the tending of sheep. The leather-working industry is, next to that of cotton, the most important numerically, employing 96,000 persons. Workers in leather decreased by 27 per cent. during the decade ending 1901. Various patterns of shoes are worn, the better qualities having ornamental designs worked with silk and cotton thread and lace. Ornamental slippers are made in Chānda and also table-covers, consisting of red leather embroidered with gold wire and green silk. Leathern reins and saddles in imitation of Cawnpore work are made in some towns. There is little worthy of remark in the ornamental gold- and silver-work of the Central Provinces, which is as a rule heavier and coarser than that made elsewhere in India, while the designs do not appeal to European taste. The variety of ornaments is considerable, but cannot be described here. Brass is generally imported in sheets from Bombay, and brass vessels are obtained ready-made in large quantities. Copper vessels are for the most part imported, but are also manufactured in Chānda. Bell-metal is an alloy made of copper mixed with zinc, tin, or pewter. Vessels for holding food are made from it, and bell-metal with a large proportion of zinc is used for the manufacture of ornaments, which are largely worn in the northern Districts. Brass ornaments are mainly worn by the aboriginal tribes.

Carpentering is not usually a village industry in the Central Provinces, the work required by cultivators being often done by the blacksmith. The largest numbers of workers at this trade are found in the Districts where there are large towns, and rural Districts only return a few hundred. Chhattīsgarh is especially deficient in this respect. Wood-carving of considerable artistic merit is executed in Nāgpur and Saugor. Bamboo-workers make household matting, screens for walls, baskets of all sizes and for all purposes, brushes, fans, sieves, and combs. Carpenters and bamboo-workers together numbered 116,000 in 1901.

Vessels of earthenware are used for cooking by all classes, and by the poorer ones for eating and drinking from. Other articles made of earthenware are pipe-bowls, clay dolls and images, and models of animals.

The number of cotton spinning and weaving mills in the Province in

1904 was seven, two being situated at Nāgpur, two at Hinganghāt, one at Jubbulpore, one at Pulgaon, and one at Rāj-Nāndgaon in the Nāndgaon State. Comparative statistics are given below:—

	1880-1.	1890-1.	1901-2.	1903-4.
Number of mills	1	3	7	7
" looms	240	805	2,144	2,401
" spindles	30,000	72,080	155,582	176,684
Average number of hands employed	1,646	4,202	10,146	9,763

The Empress Mills at Nāgpur were the first to be opened, in 1877. The Pulgaon and one of the Hinganghāt mills have only spinning apparatus, while the other five combine spinning and weaving. The seven mills contain altogether 2,401 looms and 176,684 spindles, and their aggregate capital is 97 lakhs. The aggregate out-turn of the mills in 1904 was 199,969 cwt. of yarn and 68,427 cwt. of cloth. The yarn is generally sold to weavers in the Central Provinces and also in Bengal, while the cloth, besides being disposed of locally, is sent to other Provinces of India, and that of the Empress Mills to China and Japan. Besides the mills, the Province has 100 cotton-ginning and 47 pressing factories, 65 of these being, however, not shown in the returns as they do not come within the scope of the Factories Act. These factories are situated principally in the cotton-growing Districts of Nāgpur, Wardhā, and Nimār, and the majority of them have been opened since 1891, in which year only 16 were returned. The factories contain 1,900 gins and 47 presses, and their estimated capital is 72 lakhs. The other factories include a brewery at Jubbulpore, opened in 1897; a match factory at Kotā in Bilāspur, opened in 1902; Messrs. Burn & Co.'s pottery works at Jubbulpore, started in 1892, which manufacture tiles, piping, and earthenware vessels; and a Government brick and tile factory at Warorā, turning out fire-clay bricks and tiles. A Central Gun carriage Factory for all India was opened at Jubbulpore in 1905. The average daily number of persons employed in factories in 1904 was 33,346. This figure, though small, has been sufficient, in combination with other industries, to raise the wages of daily labour in Nāgpur, Wardhā, and Nimār. The supply of unskilled labour is obtained from the local market, the lowest rates for ordinary male workmen being from Rs. 6 to Rs. 8 a month.

Commerce and trade.

Previous to the construction of railways, the Province was isolated to a marked degree from other parts of India; large tracts of country were covered by impenetrable forest, there were few towns of any importance, and any large volume of internal traffic was impracticable except along a few main routes. The records of earlier years show that in many parts of the

Province after a good harvest grain actually rotted as it lay. At the time of annexation a considerable trade had however sprung up between Nāgpur and the Narbadā valley and Bombay; grain, oilseeds, raw cotton, and the silk-bordered cloths woven in the Nāgpur plain being the staple articles of export, which were carried for hundreds of miles in country carts or on pack-bullocks. Trade was further impeded by the feeling of insecurity arising from the greed of the rulers of the State or their agents. The connexion by railway of Jubbulpore with Calcutta, and of Nāgpur with Bombay, which was effected in 1867, is the most important fact in the commercial history of the Province.

Between 1863 and 1866 the average value of exports was about 1½ crores, and of imports about 2 crores. Their combined value rose to 4½ crores in 1872, 7½ in 1882, 8¼ in 1892, and 14½ crores in 1903–4. In the first few years of this period the large imports of railway material caused the total value of imports to exceed that of exports. But this has not happened since, except in the famine years of 1897 and 1900, when the quantity of food-grains imported again temporarily turned the balance of trade against the Province. From 1873 to 1888 the excess value of exports over imports averaged between half a crore and a crore; from 1888 to 1896 it averaged about 1½ crores; while in 1903–4 it was more than 3 crores, or about Rs. 2–8 per head of population.

The value of exports in 1903–4 was 8·92 crores, or about Rs. 7–8 per head of population. Since 1863 the value of exports has increased by more than fivefold. During the last twenty years their value has doubled, while their weight has increased from 450,000 to nearly a million tons. About half the total export trade is with Bombay Port, while of the remainder Bengal takes over a crore, Berār 77 lakhs, and Bombay and the United Provinces about 50 lakhs each. Only 40 lakhs goes to Calcutta. Of the exports, 2¾ crores or one-third of the total value consists of raw cotton, 57 lakhs (6 per cent.) of yarn and cotton piece-goods, nearly 2 crores (21 per cent.) of grain and pulse, 85 lakhs (nearly 10 per cent.) of oilseeds, and 64 lakhs (7 per cent.) of provisions.

Raw cotton is, therefore, at present by far the most important product of the Province, but its pre-eminent position is entirely a feature of recent years. From 1863 to 1868, at the time of the American Civil War, the value of cotton exported rose to nearly a crore of rupees; it fell gradually until in 1883–8 the amount was only 19 lakhs, while in more recent years the demand in the European market, and the consequent rise in price, have led to an enormous expansion. The trade in Indian yarn and cotton piece-goods has also increased largely during the last decade. The exports of the former in 1903–4 were valued at 25 lakhs, and of the latter at nearly 31 lakhs, as compared with 3 lakhs and 15 lakhs in 1891. Both articles are sent mainly to other parts of India. The hand-woven silk-bordered cloths of the Nāgpur country

are exported in considerable numbers. The trade in grain fluctuates largely. Of the total value of 1·92 crores exported in 1903–4, wheat contributed 111 lakhs, rice 47 lakhs, and pulses 32 lakhs. Ten years ago the wheat trade was considered to be the backbone of Provincial commerce, and the wheat-growing districts of the Narbadā valley to be the richest and most prosperous. The average exports for 1888–92 were worth nearly two crores. In 1893 the exports of rice reached a crore of rupees. This figure has not been approached, however, since 1895. Gram, *jowār*, and *urad* are also exported. Of 85 lakhs of oilseeds exported in 1903–4, linseed contributed 26 lakhs and *til* or sesamum 44 lakhs. The bulk of these oilseeds exported is not much greater now than twenty years ago, but their value has risen greatly, while *til* has increased in both value and bulk at the expense of linseed. The principal article included in the remaining 15 odd lakhs is cotton seed, which has very recently come into prominence as an export. In 1902–3 the total exports of oilseeds were 135 lakhs. Of the exports of provisions the most important article is *ghī*. Other articles are various fruit products, such as *mahuā* flowers which are sent to Bombay, Berār, and Central India for distilling country liquor, honey, arrowroot, and *chironji*, the fruit of the *achār*-tree (*Buchanania latifolia*), used for sweetmeats. Another important industry has recently sprung up in the export of jerked meat, which is sent to Burma. Exports of hides and skins have been regrettably large in recent years, owing to the heavy mortality of cattle in the famines. Among other important articles of export are dyes and tans, chiefly myrabolams, lac, and hemp (*san*). Exports of railway plant consist principally of wooden sleepers. The exports of wood and timber are distributed among the surrounding Provinces, Bombay being the best customer. Teak and *sāl* timber and bamboos are the chief items. Among minor articles of export may be noticed fresh fruits and vegetables, which consist chiefly of Nāgpur oranges sent in large quantities to other parts of India, and occasionally to England.

The total imports in 1903–4 amounted to 5·76 crores, or Rs. 4–14 per head of population. Since 1865 the value of imports has about trebled, while since 1881 it has increased by 60 per cent. About 2½ crores was received from Bombay Port, 79 lakhs from Bengal, 76 lakhs from Bombay Presidency, approximately 50 lakhs each from Rājputāna and the United Provinces, and 32 lakhs from Calcutta. Of the total imports, yarn and cotton piece-goods, salt, sugar, metal, provisions, grain, and oils are the most important.

The demand for English yarn and cotton cloth has not as yet been adversely affected by the local mill industry, as the finer counts of thread are not produced; but imports of Indian thread and cloth are either stationary or declining. About two thirds of the salt consumed in the

Province is sea-salt from Bombay, while the northern Districts take salt from the Sāmbhar Lake, and since the opening of the East Coast Railway Madras sea-salt has been imported into Chhattīsgarh. The imports of sugar have more than doubled during the last twenty years, and now amount to 37,516 tons. Refined sugar comes almost entirely from Bombay Port, and the greater part of it is probably produced in the Mauritius. The Province now obtains large quantities of *gur* or unrefined sugar from Bengal and the United Provinces. The imports of metals have doubled in the last ten, and trebled in the last twenty years, the figures for 1903–4 being the highest on record. Large imports of metals are a certain index of prosperity. Out of a total value of 54 lakhs, manufactured iron and steel account for 23, other imports of iron and steel for 16, and brass and copper for 11 lakhs. The provisions imported consist chiefly of dried fruits and nuts, coco-nuts being the most important item. Areca-nuts and chillies form the bulk of the imports under spices, while ginger, cardamoms, cloves, pepper, and asafoetida are other articles. Rice, principally from Burma, constituted about one-sixth of the total imports of grain and pulse. During the last decade the kerosene oil imported has risen from 135,000 to 292,000 cwt.

The trade of the Province is now almost entirely concentrated on the railways, and the important roads are those leading from the great producing tracts to railway stations. Imports are mainly consigned to the large towns, owing to both their own demand and the facilities which they afford for distribution to retailers. Exports, however, are sent away from a larger number of stations, several small places favourably situated on main roads having an important trade. Raw cotton is principally exported from Nāgpur, Hinganghāt, Pulgaon, Kamptee, and Khandwā; grain from Nāgpur, Kamptee, Raipur, Jubbulpore, Gondiā, Saugor, Damoh, and Hardā; and metals are distributed from Nāgpur, Kamptee, and Katnī. All the large towns have a considerable import trade, and of the smaller towns Katnī, Wardhā, and Pulgaon are the most important.

A large proportion of the export trade in grain and oilseeds is conducted by a European firm, and the remainder by Mārwāri Baniās and Cutchī Muhammadans. Baniās also trade in *ghī* (clarified butter), and largely in cotton. In Chānda and Wardhā there are a number of Komatīs or Madrasi Baniās. Cutchīs conduct a large part of the import trade in cloths, salt, kerosene oil, and general merchandise, while Bombay Bohrās import stationery, glassware, small goods, iron and hardware. Pārsīs are general merchants, and deal in foreign goods, wines, and crockery. Several European companies are engaged in the timber trade. Grain for export is not usually sold in the weekly markets, the transactions at which are mainly retail; the cultivators either carry it in their own carts to the exporting stations, or small

retail dealers, principally Telis, Kalārs, and Baniās, go round and buy it up in villages. Cotton is generally taken by the cultivators direct to the exporting stations.

Communications. The railway systems traversing the Province are the Great Indian Peninsula and Indian Midland, the Bombay, Baroda, and Central India, the East Indian, and the Bengal-Nāgpur. Of these, the Great Indian Peninsula line is now a state line, but leased to a company for working; the Indian Midland is the property of the company of that name, but is worked by the Great Indian Peninsula Company; the East Indian is a state line, but leased to a company; the Bengal-Nāgpur line is the property of a guaranteed company; and the section of the Bombay, Baroda, and Central India within the Central Provinces is a state line leased to a company.

The two main routes between Bombay and Calcutta traverse the Province north and south of the Sātpurā plateau. The north-eastern line of the Great Indian Peninsula from Bombay divides at Bhusāwal junction into two branches, one going north and north-east for 339 miles to a terminus at Jubbulpore, where it meets the East Indian, and the other proceeding almost due east through Berār to Nāgpur, where the Bengal-Nāgpur line to Calcutta commences. The Jubbulpore line runs through the whole length of the Narbadā valley, comprising the Districts of Nimār, Hoshangābād, Narsinghpur, and Jubbulpore. At Khandwā, 353 miles from Bombay, a metre-gauge line worked by the Bombay, Baroda, and Central India takes off and proceeds north-west through Indore to Ajmer, with a length of 29 miles in the Central Provinces. Itārsi, 464 miles from Bombay, is the junction with the Indian Midland line to Cawnpore and Agra, which runs north through Hoshangābād, the Bhopāl State, and Saugor District, while at Jubbulpore the East Indian line begins, and runs for 70 miles in the Central Provinces towards Allahābād. From Bīna, on the Indian Midland line, a branch of 163 miles runs to Katnī on the East Indian, serving the Districts of Saugor and Damoh. The Nāgpur branch of the Great Indian Peninsula enters the Central Provinces at Pulgaon and runs for 70 miles through Wardhā and Nāgpur Districts to Nāgpur, 520 miles from Bombay. From Wardhā a branch of 45 miles leads to Warorā in Chānda. At Nāgpur the Bengal-Nagpur system begins, and runs through Bhandāra, Raipur, Bilāspur, and several Feudatory States towards Calcutta, with a length of 417 miles in the Province. An extension of the Bengal-Nāgpur Railway on the gauge of 2 feet 6 inches from Gondiā on the main line, 601 miles from Bombay, to connect with Jubbulpore, was opened in 1905. It passes through Bālāghāt, Mandlā, and Seonī Districts, and has branches through Seonī to Chhindwāra and to Mandlā[1], with a total length of 255

[1] The Mandlā branch had not been completed in 1906.

miles, thus bringing the greater part of the Sātpurā plateau within easy distance of a railway. From Raipur another narrow-gauge branch of 56 miles leads south to Dhamtari and Rājim in Raipur District; and from Bilāspur a connecting line on the broad gauge runs north for 85 miles to Katnī on the East Indian. Except where it has been otherwise stated, all lines are on the standard gauge of 5 feet 6 inches. There are at present no double lines, but a section of the Great Indian Peninsula west of Itārsi is about to be doubled.

The lines from Bhusāwal to Nāgpur and from Jubbulpore to Allāhābād were the first to be constructed, and were opened in 1867, the Bhusāwal-Jubbulpore line following shortly afterwards in 1870. The Indian Midland line from Itārsi to Bhopāl was constructed in 1882, and the Bhopāl-Jhānsi section in 1889. The main line of the Bengal-Nāgpur Railway was opened in 1888, being an extension of the Chhattīsgarh State Railway which had been constructed by Government on the metre gauge to Rāj-Nāndgaon, and was made over to the company, converted to the broad gauge, and extended to connect with Asansol on the East Indian, and subsequently direct to Calcutta. The Bīna-Katnī connexion on the Indian Midland was constructed in 1899. In 1904 the Province had thus 1,419 miles of railway open and a further 178 under construction, making a total of 1,597 miles, of which 1,257 were on the broad gauge, 29 on the metre gauge, and 311 on narrower gauges. This is equivalent to 54 square miles of country for one mile of railway in British Districts, and 73 for the Province as a whole. In 1891, 1,094 miles of broad gauge and 29 of metre gauge were open. With the exception of Betūl District on the Sātpurā plateau, the greater part of Chānda, and the southern Feudatory States, the railway communications of the Province may be said to be fairly complete. Among projected lines may be mentioned a branch of the Bengal-Nāgpur from Bilāspur to Mandlā, the embankment of which has been partially constructed as a famine relief work; an extension from Gondiā to Chānda on the same line, with a link from Bramhapurī to Nāgpur, to serve the south of Nāgpur and the north of Chānda Districts; a branch line from Chhindwāra to the Pench valley coal-fields; a line from Raipur to Vizianagram; a loop-line from Nagpur to Amraotī, from some point on which a connexion will be taken through Betūl to Itārsi; a branch line from Nāgpur to Rāmtek; and an extension of the Wardhā-Warorā line through Chānda to a point on the Nizam's State Railway in Hyderābād. The construction of a line from Warorā through Chānda to a new coal-field at Ballālpur, 6 miles from this town, has been begun by the Great Indian Peninsula Company.

Previous to the construction of railways, the main trunk routes of the Province were the road from Nāgpur to Jubbulpore through Seonī,

the great eastern road from Nāgpur to Raipur and Sambalpur and on to Cuttack, the southern road from Nāgpur to Chānda through Jām and Warorā, the old Bombay road from Jubbulpore through Nimār, the Jubbulpore, Damoh, and Saugor road, the Jubbulpore, Mandlā, and Bilāspur road, and the north-western road from Nāgpur to Betūl and Itārsi. Other main routes were those from Nāgpur to Chhindwāra and Pipariā, from Seonī to Katangī and Tumsar, from Saugor to Karelī, from Nāgpur to Umrer and Mūl, and from Raipur through Dhamtarī to Jagdalpur. These latter roads were important railway feeders for some time after the construction of the through lines of rail, but they have generally been superseded by the extensions of the last two decades. The construction of the railways has entirely removed the importance of the old trunk routes, except along certain lengths where they serve as feeders. One or two of them are no longer maintained to the same standard as formerly, and with the exception of the road from Nāgpur to Jubbulpore there is now no thoroughly good trunk road in the Province. The important roads at present are those which connect rich tracts in the interior with the railways; and as the railways have frequently followed the line of trunk roads, the feeders are generally small cross roads. During the last decade there has been a remarkable development of road communications, consequent on the amount of work undertaken for famine relief. The length of metalled roads has increased from 536 miles in 1892 to 1,646 in 1904-5, and that of embanked roads from 2,133 miles to 2,967. The total length of metalled and embanked roads is now 4,613 miles, or at the rate of one mile for 18 square miles of country in British Districts. The annual expenditure on the maintenance of these roads is 8·43 lakhs. Nearly 900 miles of surface roads are also maintained at a cost of Rs. 24,000. Surface or unembanked roads are under the charge of District councils, while all others are maintained by the Public Works department. Much progress has also been made during the last decade in developing the communications of the large *zamīndāris* and Feudatory States of Chhattīsgarh, under the superintendence of the Engineer of the specially created Chhattīsgarh States division. This territory, comprising 41,618 square miles, is the wildest and most backward part of the Province, and was till recently almost destitute of routes fit for wheeled traffic. Since 1893, 681 miles of gravelled roads and 763 miles of surface roads have been constructed, the funds being provided by the estates through which they pass. These roads are excluded from the totals given above. The cost of a country cart drawn by two bullocks is about Rs. 40 on an average, and the ordinary load along roads is 14 cwt.

The Central Provinces are included in the Central Provinces and Berār Postal Circle under a Deputy-Postmaster-General. The statistics (*see* Table VII, p. 106) show a large advance in postal business since

1881; the number of post offices in the Province having increased from 186 to 689, of letter-boxes from 157 to 566, and of miles of postal communication from 4,465 to 8,411. More than 7 million letters were delivered in 1903-4 as against 5¼ millions in 1880-1, 6 million post-cards as against half a million, and 147,000 parcels as against 40,000. The value of money orders issued has increased from 30 to 109 lakhs. These figures relate to both the Imperial and the District post. The latter system provided postal communications in British Districts for magisterial and police purposes, the upkeep of which was not warranted under the commercial principles of the Post Office, and funds were obtained from a cess levied at the rate of one per cent. on the land revenue. In 1906 the cess was abolished, and the cost is now included in the Imperial budget. Postal establishments in Feudatory States are paid from State funds, and were also treated as part of the District Post. In 1903-4, 141 post offices and 2,554 miles of mail lines in British Districts, and 22 post offices and 922 miles of mail lines in Feudatory States, were maintained under this system.

Famine.

At present the harvests may be said to be entirely dependent on the rainfall. A complete failure of the rains, such as occurred in 1899-1900, will destroy both the harvests and cause a universal famine. Such a failure is, however, believed to be unique. The rainfall of June, July, and August is as a rule fairly reliable, and has only failed completely in 1868 and 1899. In 1902 there was a drought in August. Very heavy or excessive rain, on the other hand, during these months is naturally not infrequent, and in some Districts may occasion substantial damage to cotton and *jowār*; but there is no record of distress having arisen from this cause. The most critical period for the crops comprises the months of September and October, when about 9½ inches should be received. This rain is necessary both for the ripening rice harvest and to enable the land to be prepared for sowing the spring grains. It is especially capricious; and while the full average is required to ensure the success of both harvests, the actual fall in one or other of these months has been more than 25 per cent. short of the average nineteen times in thirty-three years. Of the famines or scarcities for which information is available, those of 1833, 1886, 1896, and 1897 were caused by shortness of the late rains, while in 1899 an average fall in these months would have reduced a universal famine to local distress. It is especially to remedy the deficiencies of the rainfall in September and October that irrigation is required. If the rainfall up to the end of October has been satisfactory, the success of both harvests is assured against deficiency of rain, though showers in November or December are requisite for bumper spring crops. These, however, may still be spoilt by excessive rainfall in the winter months, which will induce rust or blight. Such excessive rain was,

as will be seen, responsible for the local distress which occurred in 1819, in 1823-7 in Seonī and Mandlā, in 1854-5 in Saugor and Damoh, and in 1893, 1894, and 1895 in the northern Districts generally. The spring harvest is, however, of far less importance than the autumn harvest, and there is also no single crop which so overshadows the rest as rice does the other autumn grains.

The earliest scarcities of which accounts are available resulted from political disturbances rather than climatic causes. War and its effects account for distress which prevailed in the upper Narbadā valley during the years 1771, 1783, and 1809. It is recorded that in 1771 wheat sold in Narsinghpur at 10 lb. to the rupee. In 1803 a failure of the rains caused a famine in Nimār and Hoshangābād, which had already suffered greatly from the inroads of Sindhia's armies. The famine is still known in Nimār as the 'Mahākāl,' when grain sold at 1 lb. to the rupee or about two or three hundred times its price in seasons of prosperity. In 1818–19 the Nāgpur country and the Districts north of the Narbadā suffered from a famine caused by the failure of the autumn rains and excessive rain during the following cold season. Acute famine prevailed for months in these localities, and in Jubbulpore wheat sold at 8 lb. to the rupee. In Nāgpur many of the poorer cultivators are reported to have sold their children into slavery. From 1823 to 1827 the Districts of Seoni and Mandlā suffered from a succession of short crops due to floods, hail, and blight; and many villages were deserted. In 1825-6, according to oral tradition, famine attended with loss of life occurred in Nāgpur, and it is said that many people died after eating the cooked food which was doled out to them at the Rājā's palace. In 1828-9 there was a famine in Raipur and Bilāspur, the price of grain rising from about 300 to 24 lb. per rupee. In 1832-3 excessive rain followed by drought was the cause of severe distress in the Narbadā valley, the Nāgpur country, and Berār. Heavy mortality occurred in Betul, and 5,000 people are said to have died in the city of Nāgpur. In Wardhā children were sold for 10 lb. of grain. The following year, owing to a failure of the autumn rain, the spring crop area of Jubbulpore District was left practically unsown and prices reached 16 lb. per rupee. Grain was imported by Government agency into Seoni and Mandlā. In 1834-5 a partial failure occurred in Chhattīsgarh, and, in spite of the export of grain being prohibited, prices rose to 15 or 20 times their normal level. Drought in 1845 caused severe distress in Nimār and Chhattīsgarh; and in 1854–5 a visitation of rust destroyed the wheat crop of the northern Districts, and is still well remembered by the people as a parallel to the similar disaster of 1894–5. Parents sold their children in Damoh, and many deaths from starvation were recorded in Saugor. In 1868, the year of the Bundelkhand famine, the rains ended abruptly a month before the

due time; but a heavy fall in September saved the situation over the greater part of the country, and acute distress was confined to the Vindhyan Districts, the Waingangā rice tracts, and Chhattīsgarh. Distress was, however, severe in these areas. Hundreds of deaths were reported to have occurred from starvation, and the ordinary mortality is estimated to have been trebled. About 17 lakhs was expended on relief.

The famine of 1868–9 was followed by a period of years of prosperity, broken only by the failure in 1886 of the rice crop of Chhattīsgarh. From 1893 commenced the recent cycle of bad years. In that year, and in 1894 and 1895, the spring crops of the northern Districts were spoiled by excessive winter rain. In 1894 the wheat was almost entirely destroyed by rust in Saugor and Damoh, and distress ensued. Road works were opened, but the numbers on them never reached 20,000, and only about a lakh was expended on relief. Both in 1894 and 1895 the rice crop was also severely damaged on the threshing-floors by the late rains. In 1895 the monsoon stopped abruptly in the middle of September; the autumn crops were poor, and the spring harvest realized about half a normal yield on a diminished area. Four years of poor harvests thus preceded the failure of 1896, when the rains, which up to then had been plentiful and even excessive, stopped suddenly at the end of August. The effect of the drought was the destruction of the autumn crops, with the exception of irrigated rice, cotton, and *jowār*. The spring crops were fair, but owing to the dryness of the soil only half the normal area was sown. The all-round out-turn was 56 per cent. of an average crop, but the distress was greatly aggravated by the failures of the preceding years. Severe famine prevailed throughout 1897, except in Nimār, Chānda, and Sambalpur, which partially escaped. Direct expenditure on famine relief was about 1½ crores; and indirect expenditure, famine loans, remissions of land revenue, and charitable relief made up another crore. The Provincial death-rate for the year was 69 per 1,000, compared with 32·4 during the decade ending 1891; the mortality was especially severe during the monsoon months. Owing partly to the wide area over which this famine extended, and partly to the deficiency of transport, prices ruled high, the extreme point reached being 12½ lb. per rupee in Bālāghāt. The largest number relieved was 703,000, or 8·5 per cent. of the population affected, on the 29th of May. The famine of 1897 was followed by two years of fairly good harvests, but in 1899 occurred the most complete failure of the monsoon ever known. Only five Districts received more than half their average rainfall, and five received only a third. The wheat crop was above half an average in six of the northern Districts; but over the rest of the country both crops failed completely, the all-round out-turn for the Province being

only a quarter of the normal. Famine prevailed in all Districts from October, 1899, to November, 1900; and the deficiency of the rainfall led to severe epidemics of cholera, dysentery, diarrhoea, and other diseases resulting from bad water. The administration of this famine was extremely liberal and efficient, the direct expenditure being nearly 4½ crores, while indirect expenditure and remissions of the revenue added another crore and 30 lakhs. The numbers on relief exceeded 2¼ millions, or 23 per cent. of the population of the affected tract, in July, 1900, and the total number of units relieved for one day was 556 millions. In spite of the greater severity of the famine, prices were generally lower by from 1 to 3 lb. per rupee than in 1897, the imports of Bengal rice assisting materially to keep them down. The highest price for the cheapest food-grain was 14½ lb. per rupee in Chhindwāra. The mortality for the year was 57 per 1,000, and was greatly aggravated by diseases due to the scarcity and bad quality of water. After two more fairly good seasons a prolonged break in the rains between the last week of July and the last week of August, 1902, caused a failure of the rice crop in Raipur and the Waingangā valley. Famine was confined to Raipur, which reaped only a third of an average crop.

Apart from the direct organization of relief, the remission of revenue, and the grant of loans to agriculturists for seed and cattle, the protective measures taken by Government consist of the extension of irrigation and communications. Irrigation is as yet in its infancy in the Province; and though considerable strides have been made in the last few years, it can at best only slightly mitigate the effects of a failure of the rains. The opening up of the Province by railways, so as to provide cheap transport to tracts liable to be affected, has been proceeding rapidly during the last two decades, and with the completion of the Sātpurā line will be practically complete so far as British Districts are concerned. In 1897 grain had to be imported by Government agency into parts of Mandla, Bālāghāt, and Sironchā, and these areas, with the exception of the small Sironchā tract, will be protected by the Sātpurā railway. As regards the direct administration of relief, a revised Famine Code has been compiled, embodying the experience gained in the two great famines, and detailing the whole course of procedure to be followed. Famine programmes of works for each District are drawn up and annually revised, each programme containing large public works, village works, and forest works, which are especially suitable for the primitive tribes. The programme provides work for six months for not less than 20 per cent. of the population of the District, except in tracts adequately protected by irrigation, where a half of this provision is held to be sufficient.

The administration of the Central Provinces is conducted by a Chief

Commissioner, who is the chief controlling revenue and executive authority. He is assisted by three secretaries, two under secretaries and an assistant secretary. The area of British territory comprised in the Province is 82,093 square miles, with a population of 9,216,185; and it is divided for administrative purposes into four revenue Divisions, each controlled by a Commissioner. The average area of a Division is 20,500 square miles, and the population 2,250,000 persons. Three of the Divisions contain five Districts, and one (Chhattīsgarh) three. The Commissioner of the Division supervises the working of all departments of Government in his Division, except those outside the sphere of the Local Administration, through the Deputy-Commissioners of Districts, who are his immediate subordinates. Till recently the Commissioners also exercised civil and criminal jurisdiction. The principal heads of Provincial departments are the Commissioner of Settlements and Land Records, the Inspector-General of Civil Hospitals and Sanitary Commissioner, the Inspector-General of Police, the Inspector-General of Prisons, the Director of Public Instruction, the Commissioner of Excise and Miscellaneous Revenue, who is also Inspector-General of Registration, and the Director of Agriculture. The Controller and the Deputy-Postmaster-General represent Imperial departments under the Government of India. Berār is now included in the jurisdiction of all these officers.

Administration.

The Province is divided into 18 Districts[1], with an average area of 4,561 square miles and a population of 512,010 persons. Each District is in charge of a Deputy-Commissioner, who is the chief revenue authority and also District Magistrate, and exercises the usual functions of a District officer. The District forests are managed by a Forest officer, usually a member of the Imperial Forest service, over whom the Deputy-Commissioner has certain powers of supervision, particularly in regard to matters affecting the welfare of the people. Each District has a Civil Surgeon, who is generally also Superintendent of the District jail, and whose work is supervised by the Deputy-Commissioner in respect of village sanitation, the registration of vital statistics, and the financial management of the jail and dispensaries. The Deputy-Commissioner is also marriage registrar, and manages the estates in his District which are under the Court of Wards.

In his revenue and criminal work the Deputy-Commissioner is assisted by (*a*) one or more Assistant Commissioners, or members of the Indian Civil Service; (*b*) one or more Extra-Assistant Commissioners, or members of the Provincial civil service, usually natives of India, but including a few Europeans and Eurasians; and (*c*) by

[1] In 1905-6 the new District of Drug was constituted from portions of Raipur and Bilāspur Districts; but, at the same time, Sambalpur District was transferred to Bengal. The total number of Districts therefore remains at 18.

tahsīldārs and *naib-tahsīldārs*, or members of the Subordinate service who are nearly always natives of India. The number of Assistant Commissioners on ordinary duty in 1904 was 21, and of Extra-Assistant Commissioners 100, giving 7 officers to each District[1]. Recently the subdivisional system prevailing in most other Provinces has been introduced into the Central Provinces. According to this, an Assistant or Extra-Assistant Commissioner is placed in charge of a subdivision consisting of one or two *tahsīls*, with the powers of a Subdivisional Magistrate under the Criminal Procedure Code, extended powers under the Revenue Law, and authority to supervise the revenue and police officials. In 1904, 22 subdivisions were formed, the subdivisional officers with one or two exceptions residing at the District head-quarters but touring in their subdivisions during the open season.

The District is divided for administrative purposes into two or more *tahsīls*, each of which has a *tahsīldār* and *naib-* or deputy-*tahsīldar* with a *tahsīl* office, and except in the case of head-quarter *tahsīls* a subtreasury. The number of *tahsīls* in 1906 was 53, or an average of three to a District. The average area of a *tahsīl* is 1,550 square miles, and the population 173,890. The *tahsīldār* is the Deputy-Commissioner's right hand in his revenue and executive work; and, besides being responsible for the collection of the revenue and the distribution and repayment of land improvement and agricultural loans, he makes inquiries and carries out orders in matters of revenue law and administration. The *tahsīldār* is also a criminal magistrate, but has usually no civil work. The *naib-tahsīldār* has no special functions apart from those of the *tahsīldār*. He is usually not a magistrate, but sometimes tries civil cases.

In each village one or more *lambardārs*[2] are the representatives of the proprietary body or *mālguzārs* when the ownership of the village is divided into shares, and their duty is to collect and pay in the Government revenue. The *lambardār*, or, if there are several, one of them, is also *mukaddam* or executive headman of the village. If he is non-resident, he must appoint an agent or *mukaddam gomāshta* to act for him. The *mukaddam* exercises the usual duties of a village headman, but has no magisterial powers, and except by the exercise of his personal authority, which, however, is frequently considerable, cannot coerce or restrain the residents.

Each District has a Land Record staff, controlled under the Deputy-Commissioner by a native superintendent, and consisting of two grades of officials, revenue inspectors and *patwāris*. There is on an average one *patwāri* to 8 villages, and a revenue inspector to every 25 *patwāris*, the

[1] These figures include the civil judicial staff, now designated District and Subordinate Judges.

[2] The word *lambardār* is a corrupt formation from the English word 'number.'

total number of revenue inspectors being 205, and of *patwāris* 4,927. The *patwāri* is the village surveyor and accountant, and his office is an ancient one, but he is now a paid and trained Government servant, instead of being a dependent of the landowner as he formerly was. Each revenue inspector is in charge of a number of *patwāris'* circles, and his duties consist in training the *patwāris* in surveying and the preparation of the annual returns. The Land Record staff also furnish a most valuable agency for the supply of accurate information in times of anxiety for the harvest, and for the organization of famine relief when this becomes necessary.

The Province contains 15 Feudatory States, covering an area of 31,188 square miles with a population of 1,631,140 persons. One of the States, Makrai, lies within Hoshangābād District; the remainder are situated in the Chhattīsgarh Division, to the different Districts of which they were formerly attached. Their relations with Government are controlled by a Political Agent. The States vary greatly in size and importance, Saktī, the smallest, having an area of 138 square miles, and Bastar, the largest, of 13,062. They are administered by hereditary chiefs, who hold on conditions of loyalty and good government set forth in patents and acknowledgements of fealty, but are nominally free from direct interference save in the case of sentences of death, which require the Chief Commissioner's confirmation[1]. But, as a matter of fact, the Government has exercised a very large amount of control, owing mainly to the frequency with which the States have been taken under direct management, because of either the minority or the misconduct of the chief. During a minority the affairs of the State are generally managed by a Superintendent under the control of the Political Agent. In some cases also the assent of Government to the accession of a new chief is made contingent on his employing an officer nominated by Government as his *Dīwān* or minister. The Superintendents and *Dīwāns* appointed by Government are usually officers specially selected from the Provincial or Subordinate service according to the size of the State. In practice, as many of the State officials have received a legal training in Government service, the ordinary criminal and civil law are applied, magisterial and civil powers being delegated by the chief. In several States a cadastral survey has been carried out and the system of revenue settlement prescribed for British Districts introduced. The revenue is settled with the village headmen, who have no proprietary rights, but receive a drawback on the collections. The States pay a tribute to Government which amounted in the aggregate to 2·43 lakhs in 1904.

The legislative authority for the Central Provinces is the Council of

[1] In eight States sentences of imprisonment for over seven years also require confirmation.

the Governor-General of India for the purpose of making Laws and Regulations. The principal Acts passed since 1880 which specially affect the Central Provinces, excluding repealed Acts, are the following:—The Central Provinces Land Revenue Act, 1881, amended by supplementary Acts in 1889 and 1898; the Central Provinces Tenancy Act, 1898, amended by Act XVI of 1899; the Central Provinces Local Self-Government Act of 1883; the Central Provinces Civil Courts Act, II of 1904; the Central Provinces Government Wards Act, XXII of 1885, amended in 1899; the Central Provinces Municipal Act, XVI of 1903; and the Central Provinces Village Sanitation Act of 1889, amended by Act XI of 1902.

Legislation and justice.

By the Civil Courts Act of 1904 the civil has finally been separated from the executive department. The civil staff consists of four Divisional Judges having jurisdiction in each Division, 18 District Judges in Districts, 30 Subordinate Judges, and 50 Munsifs. *Tahsīldārs* and *naib-tahsīldārs* try rent suits, but rarely exercise other civil powers. The court of a Munsif has original jurisdiction up to Rs. 500, and that of a Subordinate Judge up to Rs. 5,000. The District Judge has unlimited original jurisdiction except in proceedings under the Indian Divorce Act, which lie in the court of the Divisional Judge. Appeals from Munsifs and Subordinate Judges up to Rs. 1,000 lie in the court of the District Judge, and above that in the court of the Divisional Judge. Appeals from the District Judge up to Rs. 5,000 are heard in the courts of the Divisional Judge, and above that in the court of the Judicial Commissioner. The Judicial Commissioner is the highest court of civil appeal, and except in cases against European British subjects, when the High Court of Bombay has jurisdiction, the highest court of criminal appeal. He is assisted by an Additional Judicial Commissioner for the Central Provinces, and another for Berār.

The administration of criminal justice was formerly entirely in the hands of Commissioners and of the District staff. Commissioners have now no criminal powers as such, and their place as Sessions Judges has been taken by Divisional Judges. Deputy-Commissioners are also District Magistrates, and have power to try all offences not punishable with death. In the more important Districts selected Assistant and Extra Assistant Commissioners are also invested with this power. Otherwise these officers usually exercise first-class magisterial powers. *Tahsīldārs* are usually second-class magistrates, with power to impose sentences of whipping. In addition to the stipendiary magistrates, a number of non-official native gentlemen have been appointed honorary magistrates. The criminal judiciary includes the Judicial Commissioner's court, which is a High Court for the Central Provinces, four courts of Session, 18 courts of District Magistrates, 64 courts of magis-

trates of the first class, 76 of the second class, and 46 of the third class, or 209 in all. These figures include 78 benches of honorary magistrates, with 260 members. Appeals from magistrates of the second and third class lie to the District Magistrate, while certain other first-class magistrates have also been invested with the power of hearing appeals. Appeals from magistrates of the first class and from District Magistrates lie to the Court of Session, and from the Court of Session to the Judicial Commissioner.

The marked features of the statistics of civil litigation (Table VIII, p. 106) are the large increases in the number of suits for the first twenty-five years after the constitution of the Province, and the stationary or declining state of litigation in the next fifteen years. In 1862 the total number of suits filed was 24,666. They had increased to 89,903 in 1881, and to 112,665 in 1886. In subsequent years there have been considerable decreases, and in 1904 the total was 79,455. The character of litigation has been substantially the same throughout this period, the large majority of suits, amounting in 1904 to 69 per cent. of the total, being for the recovery of money or movable property. Of the other classes, suits for immovable property constitute 6 per cent. of the total, and those under the rent law 15 per cent. Suits are generally of very trifling value, 59 per cent. of the total not exceeding Rs. 50 and only 4 per cent. being above Rs. 500. During the decade ending 1900 the average number of appeals filed annually was 6,960, or 7 per cent. of the number of suits. Of these, 652, or 9 per cent. of the total, were filed in the court of the Judicial Commissioner; 370, or 5 per cent., in the Divisional Courts; and 5,938, or 85 per cent., in the District Courts.

The conclusion indicated by the statistics of crime (Table IX, p. 107) during the forty years for which they are available is that the number of offences committed annually has remained remarkably constant, allowing for variations due to abnormal conditions such as famine. The number of persons annually brought to trial has been about 40,000. In 1866 it was 41,700, the average for the decade ending 1890 was 39,200, and that for the decade ending 1900 nearly 45,000, the last figures being increased by the abnormal statistics of crime in three famine years. The statistics of the last few years show an apparent decrease in crime, the number of persons tried in 1904 being only 35,000. The decrease is principally in offences against property, only 8,000 persons being tried under this head in 1904, as against an average of 13,700 for the decade ending 1890, and 19,000 for that ending 1900. This decrease may be partly real, but is also to be accounted for by recent orders forbidding the investigation of petty offences by the police. On the other hand, offences against special and local laws have increased from about 8,000 to 11,000, on account of the more rigorous enforcement of sanitary and

other regulations in towns. Murders and cognate offences show some increase in recent years, while rape and dacoity have decreased.

The average number of registration offices open during the decade 1881–90 was 76, and the number of documents registered 24,107, the corresponding figures for 1891–1900 being 88 and 31,947, and for the year 1904 90 and 22,351 respectively. The Deputy-Commissioner is *ex-officio* District registrar. Each *tahsīl* has a sub-registration office in charge of a special salaried sub-registrar, and where the work is heavy another office exists in the interior of the *tahsīl*. The department is under the control of an Inspector-General, and there are two Registration Inspectors for the Province.

Finance.

The main source of government income in the Central Provinces has always been the land revenue, but under Marāthā rule numerous petty imposts were added on all branches of trade and industry. These embraced a duty on home produce passing from one part of the country to another, or beyond the frontier, and on foreign merchandise in transit, and numerous other imposts on all articles produced, such as taxes on the stamping of cloths, on tobacco, sugar, cotton, silk, turmeric, and *mahuā*, and on working artisans, as oil pressers, fishermen, butchers, and tanners; a tax on contracts or licences for the vending of spirituous liquors; a cess on houses, intended to fall particularly on that part of the population not engaged in agriculture; and numerous petty taxes of different kinds, among which may be mentioned a tax on the remarriage of widows, one fourth of the sale-proceeds of houses, dues on the playing of musical instruments at weddings, and on the use of red powder at the Holī, a fourth of debts recovered by civil action, a tax on gambling, a special tax on the marriages of Baniās, and others. This multiplicity of small imposts cannot but have been irksome and harassing to the people to the last degree. The greater number of them were abolished on the commencement of British administration, and in the few which were retained can be recognized the germs of our principal sources of revenue outside the land.

The scheme of Provincial finance was introduced from 1871 to 1872, with the object of enlarging the powers and responsibilities of the Local Governments in respect to expenditure in some civil departments. The method first adopted was to make an annual grant from Imperial revenues to the Provincial Government for the net expenditure in those departments which had been transferred to its control. Gradually the system was introduced of transferring to the Provincial budget the income and expenditure of those departments of administration for which the Provincial Government was mainly responsible; while the contribution from the Province to the Imperial exchequer was paid in the form of a share of the income of the great receiving departments, so

that the burden on the Province might increase or diminish according to the fluctuations in its own resources. This object has not, however, been attained in the Central Provinces in recent years, owing to the disorganization caused by famine.

The average receipts and expenditure of Provincial funds during the quinquennium ending 1887 were 76 and 75·3 lakhs respectively. Provincial receipts represent only the share of the revenue under different heads which is credited to Provincial funds. In this settlement the receipts and charges under Forests, Excise, Assessed Taxes, Stamps, Registration, and the refunds of these revenues were divided equally between the Imperial and Provincial Governments, while those under Provincial Rates, Law and Justice, and Minor departments were made wholly Provincial. The receipts from Land Revenue were nearly equally divided, while the greater part of the expenditure was debited to Provincial funds.

During the next period of five years the receipts and expenditure averaged 75·2 and 75 lakhs respectively. For the previous fifteen years the revenue from Excise and Stamps had steadily increased, and this period also witnessed substantial increments in Land Revenue, Forests, and Assessed Taxes.

The budgeted receipts and expenditure for the quinquennial period from 1892–3 were 78·8 lakhs; but owing to the series of failures of crops, the average receipts during its currency were 77·8 lakhs, while the expenditure was 81·9 lakhs. Famine conditions led to the next settlement being made for the year 1897–8 only. Provincial funds received half of the receipts from Land Revenue, Assessed Taxes, Forests, and Registration, a fourth of those from Excise and three-fourths from Stamps, the balance in each case going to the Imperial Government, while the receipts and expenditure from the other departments mentioned remained Provincial. The Provincial revenue was estimated at 84·4 lakhs (including a contribution of 3·7 lakhs from Imperial funds), and the expenditure at the same figure. These estimates, however, were not realized owing to famine, and equilibrium was only attained by a further contribution of 20 lakhs from Imperial funds.

In view of the special circumstances of the Province, and the recurrence of famine, the settlement of 1897–8 was extended up to 1905–6, when a fresh settlement of a quasi-permanent nature was made for the Central Provinces together with Berār. According to this, Provincial funds obtain half of the receipts from Land Revenue, Stamps, Excise, Assessed Taxes, and Forests, and the whole of those from Registration and Provincial Rates. The whole of the expenditure on Land Revenue and Registration is debited to Provincial funds, and a half of that on Stamps, Excise, Assessed Taxes, and Forests. A fixed annual assignment of 27 lakhs is made to Provincial funds from the Imperial share

of Land Revenue. The estimated Provincial income of the Central Provinces and Berār for the year 1906–7 is 189 lakhs, and the estimated expenditure 188 lakhs.

The total revenue raised in the Central Provinces under heads wholly or partly Provincial in 1903-4 (Table X A, p. 107) amounted to 164·7 lakhs. The main items were, in lakhs of rupees—Land Revenue 83·9, Stamps 14·5, Excise 25·6, Provincial Rates 11·3, Assessed Taxes 3, Forests 13·9, Registration 0·9, Law and Justice 1·2, Jails 1·3, Police and Pounds 1·7, and other sources of revenue 7·3 lakhs. Out of the total revenue of 164·7 lakhs, 116·2 lakhs was credited to Provincial funds, including contributions of 36·5 lakhs from Imperial funds.

The total amount expended in the Province under the several heads of Provincial expenditure in 1903–4 (Table X B, p. 108) was 146·43 lakhs, of which 123·6 lakhs was debited to Provincial funds. The main heads[1] were—Charges in respect of collection of Revenue 32 lakhs, General Administration 7·7, Law and Justice 16·3, Police 16·1, Education 8·9, Medical 5·1, Pensions and Miscellaneous Civil Charges 20·4, and Public Works 30·3 lakhs. Charges in respect of collection include the administration of the Land Revenue, Stamps, Excise, Assessed Taxes, Forests, and Registration departments. During the four years ending March, 1904, 9·27 lakhs from Imperial revenues have been expended on 'major' and 3·74 lakhs from Provincial revenues on 'minor' irrigation works. Ecclesiastical charges (Rs. 64,000) and territorial and political pensions to representatives of former ruling families and others (2·27 lakhs) are solely Imperial heads of expenditure. All heads of expenditure have increased in the last few years, the pay of the Commission having been raised while its numbers have increased, and large additions having been made to the strength of the Provincial and Subordinate services. Famine relief is ordinarily a charge on Provincial funds, but in view of the large outlay and depletion of the Provincial balance, the whole cost of famine since 1894 (except during the years 1894-5 and 1898-9) has been met from Imperial revenues. The direct expenditure on famine between 1894 and 1904 amounted to 6·13 crores, while additions on account of loss of revenue, indirect charges, and irrecoverable advances make up the total cost of famine during this period to 8·76 crores. Provincial expenditure on the prevention of plague amounted to 5·34 lakhs from 1898 to 1904.

Land revenue.

The commencement of British rule found most villages of the open country in the hands of lessees (*pālels* or *thekādārs*), who held farms of the village land revenue from government, generally for short periods, the leases being given for single

[1] The figures in this paragraph differ from those contained in Table X B, as they show the whole expenditure of the departments and not only the expenditure debited to Provincial funds.

villages. Villages so managed were collectively known as the *khālsa*. The hills and forests surrounding the plains were parcelled out into estates held by hereditary chieftains, called *zamīndārs* or *jāgīrdārs*. These generally held on a feudal or service tenure, paying a nominal revenue, but being responsible for the maintenance of order and for the protection of the lowlands. A third class of villages was held free of revenue by persons or religious foundations to whom they had been assigned.

At the long-term settlements made immediately after the constitution of the Province in 1861, it was decided to recognize as full proprietors all persons in possession of villages, whether as lessees, *zamīndārs*, or revenue-free grantees. The reasons which prompted this declaration of policy are not set forth in the documents containing it. But they appear to have been based on the same belief that led to the Permanent Settlement of Bengal, that is to say, that the development of the country could best be assured by a class of landlords possessing as nearly as possible a fee simple in their estates. Fifteen of the *zamīndāris* were considered to be of sufficient importance to warrant their being constituted Feudatory States. The estates in the northern Districts which had come under British rule thirty-six years earlier than the rest of the Province had at the time of the settlements in 1863 already lost most of their distinctive features, and were simply settled with the landlord, village by village, as an ordinary proprietor. The estates in Bhandāra and Bālāghāt Districts, many though not all of which were of recent origin, were settled at a favourable revenue assessed on the whole estate as a unit; but their owners received no patent, and hold as ordinary proprietors, their estates being partible and alienable. The holders of the other *jāgīrs* and *zamīndāris* in Hoshangābād and Chhindwāra, Chānda, and the Chhattīsgarh Districts were similarly assessed to a single payment at a favourable proportion of the 'assets,' and either then or subsequently received patents declaring their estates inalienable, heritable by the rule of primogeniture, and not liable to partition, though the legal effect of these restrictions is not quite free from doubt. In the villages of the *khālsa* the effect of the grant of proprietary rights to the headmen was much wider than in the *zamīndāris*, and converted a leasehold into practically a freehold tenure, the proprietors of villages so created being called *mālguzārs*. The grant of transferable rights and the resulting increase in their credit has, however, not been an unmixed boon to the village proprietors. Not much accustomed to forethought or capable in business, many of them borrowed up to the limit of their means, only to find when a series of bad harvests supervened that they could not pay their debts, and must relinquish their estates to the money-lender. The expropriation of the hereditary village proprietors has engaged the anxious attention of Government; and

under the new Tenancy Act of 1898, it is provided that no landowner can alienate his village without retaining a cultivating occupancy right in his home-farm land, unless the transfer without reservation has been previously sanctioned by Government. In many of the *zamindāri* and other large estates the tenure of inferior proprietor was conferred on farmers of villages of long standing, in order to protect them against ejectment. Subsequently to the grant of proprietary right a new tenure has been devised with the same object, that of protected status '*thekādār* or farmer.'

The *mālguzāri* tenure is subject to partition according to Hindu law; and the most recent statistics show that the ownership of 27,575 villages is shared between 94,575 persons, giving an average of 3·4 shares for each village.

The class of revenue-free grantees hold on different conditions, some grants having been made wholly free of revenue and others on a quit-rent, both classes being in some cases granted in perpetuity, in others for a term, as, for example, a number of lives. Such grants are resumed on expiry of the term of the grant, alienation of the property by the grantee, or breach of the conditions on which the grant was made. The amount of land held on revenue-free or quit-rent tenure in 1903–4 was 2,662 square miles, and the amount of revenue alienated 4·28 lakhs.

Of the whole area of the Province, 31,188[1] square miles are included in the Feudatory States, 16,796 square miles in the *zamīndāri* area held under custom of primogeniture, and 48,906 square miles in the *mālguzāri* area held under ordinary Hindu law. The remaining area, amounting to 16,391 square miles, represents the forest estate held by the Government as direct proprietor. This tract consists of the waste and forest area reserved after the allotment to villages of sufficient land for their requirements, the proportion thus given being usually twice the cultivated area. For a time a certain quantity of Government waste land was sold outright, free of land revenue though not of cesses, the amount of land thus permanently alienated being 213 square miles. In recent years, the policy has been adopted of setting apart any excess of waste land not required as 'reserved' forest for colonization on the *ryotwāri* system. The total area held on *ryotwāri* tenure in 1903–4 was 2,571 square miles; but of this only 459,268 acres or 718 square miles were actually occupied for cultivation and assessed to revenue.

Of the village lands held in *mālguzāri* or ordinary proprietary right, the village waste or forest, subject to certain easements of the tenants, belongs to the proprietors, who also own demesne lands amounting to 19 per cent. of the whole area occupied for cultivation. The remaining area is held by different classes of subordinate proprietors or tenants

[1] The figures in this paragraph have been adjusted on account of the transfers to Bengal.

with varying rights. The first class is that known as *mālik-makbūza* or 'plot-proprietor,' who pays revenue to Government through the proprietor of the village and has complete transferable and heritable right. Only 4 per cent. of the occupied area in the *khālsa* is held by this tenure. Next to the *mālik-makbūza* the 'absolute-occupancy' tenure is the most privileged. This is heritable and transferable, subject to pre-emption on the part of the landlord, and includes fixity of rent for the term of settlement. Both *mālik-makbūza* and 'absolute-occupancy' rights were conferred at the same time as those of proprietors, and are not capable of being acquired. 'Absolute-occupancy' tenants hold 12 per cent. of the whole area. The status which is now considered to confer the necessary measure of protection, and which can be acquired at any time, is that of an 'occupancy tenant.' The rent of an 'occupancy tenant' is fixed at settlement, and is liable to enhancement by a Revenue officer at intervals of not less than ten years, on proof that it is inadequate. His tenure is heritable by direct succession, or by collaterals resident in the village, but under the recent amendment to the law is not transferable except to an heir or a co-sharer, or by a sub-lease for one year. Occupancy rights could formerly be alienated with the landlord's consent, and the change has been made with a view to the protection of this class of tenants from expropriation for debt. These rights were till recently acquired by twelve years' continuous possession of the land; but this rule has been abrogated, and they are now obtained only by a payment to the proprietor of a premium of two and a half years' rental. 'Occupancy tenants' hold 30 per cent. of the whole area. The ordinary or non-occupancy tenants have been holding until lately almost at the pleasure of their landlords, and in some tracts have been severely rack-rented. But the recent Tenancy Act (XI of 1898) has conferred on them a very substantial measure of protection. Their rents, like those of the superior classes, are now fixed at settlement and the Settlement officer has power to reduce exorbitant rents. The rent can be enhanced at intervals of seven years after settlement, but the tenant can apply to a Revenue officer to have a fair rent fixed. As in the case of 'occupancy tenants' and for the same reasons, the right of transfer has now been withdrawn from ordinary tenants. The tenure is heritable in direct succession, but not by collaterals unless they are co-sharers in the holding. Ordinary tenants hold 31 per cent. of the occupied area. There remains the class of village service tenants, who hold their land rent-free or at a reduced rent on condition of rendering customary service. They possess 1 per cent. of the occupied area.

The Central Provinces have been constituted so recently, and are made up of tracts differing so widely in their previous history, that no estimate of the land revenue previous to the cession of the Saugor and Nerbudda Territories and the simultaneous commencement of the

regency in Nāgpur can be attempted. At that date, 1817–8, the revenue of the Saugor and Nerbudda Territories[1] was 28½ lakhs, that of Nāgpur[2] 21 lakhs, and that of Chhattīsgarh[3] 3·6 lakhs. If to this we add the earliest available figures for Nimār (Rs. 93,000) and Sambalpur (1·1 lakhs), a total of 55·1 lakhs is arrived at.

Previous to their cession the Saugor and Nerbudda Territories had been harassed by constant war and ground down by exceedingly heavy taxation. A system of short leases ruled, and villages were given to the highest bidders. The headmen had to content themselves with a tenth of the profits, and the hereditary families were displaced by outside speculators. Short-term settlements were made at the commencement of British rule; and in the belief that the benefits conferred by a settled government should enable the people to pay more, an abortive attempt was made to maintain and even enhance the revenue handed over to us by the Bhonsla government. Twenty years after the cession the revenue had fallen from 28½ to 24 lakhs; and in 1836-7, the necessity for substantial abatements having been fully recognized, a twenty years' settlement was made in which the demand was fixed at 22¼ lakhs. On its expiration, and after the dislocation caused by the Mutiny, these Districts in common with the rest of the Province were settled for thirty years.

Nāgpur was under British administration from 1818 to 1830, when it was restored to native rule till 1854. Under the Marāthās the assessment was made annually, and the amount was fixed in the first place in the aggregate for the *pargana* or small subdivision, and then distributed among the villages by the *pargana* officer in consultation with the headmen. Between 1818 and 1830, triennial settlements were substituted for annual settlements, and the administration was considerably improved. When the Districts were handed back, the revenue had been raised from 21 to 26½ lakhs. The subsequent period of Marāthā administration was extremely lax, numerous assignments were made, and much of the revenue was appropriated by the officials. At the cession in 1854 the demand had fallen to 23 lakhs. Summary revisions were made after the cession, and replaced by a long-term settlement in 1860.

The Chhattīsgarh Districts had enjoyed for many centuries a peaceful and patriarchal government under the Haihaivansi Rājput dynasty, until this was subverted by the Marāthās in the eighteenth century. The Haihaivansis were content to accept service in lieu of a portion of their revenue, and do not appear to have felt a want of money which would induce them to rack-rent their subjects. To this must be added the

[1] The Jubbulpore and Nerbudda Divisions, excluding Chhindwāra and Nimār.
[2] The Nāgpur Division and Chhindwāra.
[3] Raipur, Bilāspur, and Drug.

fact that the country, owing to its isolation, was untouched by foreign invaders, while at the same time the absence of any means of transport made grain unsaleable in years of plenty. The result was that the country paid an extraordinarily low revenue, and has continued to do so up to the present time. Between 1818 and 1830 this territory was admirably administered by Colonel Agnew, who, while retaining the annual settlements previously in force, effected such improvements in the system of collection as to raise the revenue from 3·6 to 3·9 lakhs, while removing all its oppressive features. After its restoration to native rule the country fared pretty well, and would have greatly improved had it not been for scarcities in 1835 and 1845, which ruined a large number of villages. In spite of this, however, the revenue continued to increase, and at the escheat in 1854 had risen to over 4 lakhs. From 1854 to 1862 triennial settlements were made, and the revenue was raised to 4·6 lakhs.

In 1863 and the following years long-term settlements were carried out throughout the whole Province, being made for thirty years in thirteen Districts, for twenty years in four, and for twelve years in Sambalpur. This settlement marks a great epoch in the history of land revenue administration, as it witnessed the creation of the system of proprietary and cultivating tenures described above, and was accompanied by the first cadastral survey of the village lands. The average proportion of the proprietors' income or 'assets' taken as revenue in all Districts was 62 per cent. The total enhancement of revenue was only 7 lakhs or from 53 to 60 lakhs, and in several Districts the demand was reduced. The procedure of the settlements contemplated such an adjustment and enhancement of the rental of the tenants as would be in agreement with the new revenue. But in practice the rental was substantially enhanced only in eight Districts, while in nine the increase was under 10 per cent.

During the currency of the thirty years' settlement the Province enjoyed a period of almost unbroken agricultural prosperity. Shortly after its commencement the railway was opened from Bombay to Nāgpur and Jubbulpore, producing an immediate large increase in the demand for produce and a rise in its value. When the course of prices was examined at the recent revision, it was found that in ten Districts the price of the staple grains had doubled, thus producing a decrease of 50 per cent. in the real burden of the revenue. Between the thirty years' settlement and 1893–4 the cropped area increased by 29 per cent., while the rental of the tenants had been raised in sixteen Districts by 29 lakhs by the proprietors themselves. The benefits of this great increase of wealth had been enjoyed for a long period of years by the tenants and proprietors, the Government obtaining no fraction of the proportion to which it was legitimately entitled.

The new settlements began in 1885 with Sambalpur. They were preceded by an accurate cadastral survey, and a detailed record of tenures, rent, and character of cultivation for every field in the village. In addition, a list was drawn up showing for every field the quality of its soil, and its position, whether favourable or unfavourable for cultivation. In every District a number of soils of different quality and varying productiveness, often amounting to ten, twelve, or even more, were distinguished, most of these being known to the people and designated by their vernacular names. Besides this, the position of each field was taken into account as far as this affected its productive capacity. In order to arrive at a correct valuation of land, a system was devised by which each different soil was represented by a proportionate numerical factor of value, and the factor was increased or diminished in a fixed ratio for each different position in which a field might lie. This numerical factor was considered to be the equivalent of the same number of 'soil-units,' and the system is called the 'soil-unit' system. The proportion by which the rental generally could be enhanced on the score of rise in prices and increased cultivation was first determined, the average rent now paid by one 'soil-unit' was obtained by dividing the total number of 'soil-units' contained by all fields in the village into the rental of the village; the rent which one 'soil unit' would pay according to the percentage of enhancement was calculated, the result being known as the 'unit-rate', and the rent for each field or holding was then deduced by multiplying this figure by the number of 'soil-units' contained in the field or holding. The process is, however, in practice not merely mechanical, nearly every village being inspected by the Settlement officer, while different rates of enhancement are taken for different groups of villages, and then again varied for individual villages. When the deduced rent, or that which each holding should be called on to pay according to its capacity, has been calculated, the existing rent is compared with it, and if the enhancement would be too large a lower one is fixed. The rents of all tenants were fixed in this manner; and the rental value of the home farm of the proprietor or *mālguzār* was similarly calculated by the 'soil-unit' system, as a rule, according to the 'unit-rate' fixed for the village. Any income which the proprietor might enjoy from forest grass or fruit trees on the village waste, or other extraneous sources, was further included at a low valuation and with a large margin for fluctuations. The total of rents, rental value of home farm, and miscellaneous or *siwai* income, constitutes the proprietor's income or 'assets' of the village. The Settlement officer then proceeded to determine the share of the 'assets' which was to be taken as revenue.

The average increase in the rent roll over that at the previous settlement was 55 per cent., the highest rate of increase being 107 per cent.

in Bilāspur, where there had been a large extension of cultivation. The actual increase of rents at revision was usually much less than this, as all enhancements made by the proprietors themselves during the currency of settlement have to be deducted from it. The actual increase in rents at settlement varied from 1 per cent. in Mandlā to 39 per cent. in Sambalpur, the average being 14 per cent. The pressure of the revised rental on the tenants has recently been examined, and it is estimated that the rental value of the *mālguzāri* area of the Province amounts to about 162 lakhs. The value of the annual crop out-turn is taken at a moderate computation to be about 17 crores. The rental absorbs therefore less than a tenth of the produce. The fraction of the proprietor's income or 'assets' taken as revenue was generally smaller than at the thirty years' settlements, the average for sixteen Districts being 56 per cent. as against 62 per cent. in 1863. The land revenue of the Province was raised from 60 to 89 lakhs, the largest enhancement being 80 per cent. in Bilāspur. The recent series of partial and total failures of the harvest has, however, in many Districts caused a serious decrease in the extent and value of the crops grown, while the agricultural classes have become impoverished and indebted. Government has been quick to recognize the altered state of things; and in addition to large remissions of the current demand in seasons of failure, regular abatements of revenue for a period of years have been made in all the affected Districts. In 1903–4 the land revenue had been reduced to 86 lakhs[1], falling at 9 annas 3 pies per acre on the cultivated area. Action is also under consideration for increasing the elasticity of the land revenue collections, and for providing for rapid and liberal suspensions of the demand in cases of local failure of the harvest.

The period now adopted for land revenue settlements is twenty years, as being most suitable for the Province in its still developing condition; but in order to cause the new settlements to expire in rotation and not simultaneously, they have been made for terms ranging from twelve to twenty-three years in different Districts.

In the *zamīndāri* estates the revenue is fixed at a favourably low rate, as a rule not exceeding 40 per cent. of the 'assets.' In *ryotwāri* villages the whole of the ryot's payment is taken as the Government revenue, subject to a small drawback allowed to the managing headman (*pātel*) for the trouble of collection. In regularly settled *ryotwāri* villages the revenue is assessed on holdings or 'survey-numbers,' and in others according to the area cropped, which is measured annually. Concessions are granted to headmen who agree to found new villages by the remission of the revenue for three years, and in the case of

[1] The demand for land revenue in the Province, after the changes of area effected in 1905, was 84 lakhs, and the demand for cesses 10 lakhs.

rice villages, in which a tank is constructed, for a longer period which may extend to twenty years.

Miscellaneous revenue.

Up till 1872 the cultivation of poppy under licence was permitted all over the Province, but it was completely prohibited in 1879. Opium is now obtained from the factory at GHĀZĪPUR, and supplied to District treasuries, whence it is issued to licensed vendors at Rs. 22 a seer. Of this, Rs. 8–8 is credited to the opium revenue as the cost of production, and the remaining Rs. 13–8 represents the excise duty. Shops for the retail vend of opium are sanctioned in special localities, and the contracts for sale are disposed of annually by auction. In 1903–4 there were 952 permanent and 338 temporary shops in British territory. Besides the licensed vendors the District treasuries also supply the Feudatory States, who have agreed to obtain all the opium required in their territories in this way. The drug is issued to them at different rates, which are fixed by agreement and are usually lower than the rate charged to licensed vendors in British Districts.

The consumption of opium in 1903–4 amounted to 768 maunds, and the excise revenue was 6·10 lakhs, of which 2 lakhs was derived from licence fees, 3 lakhs from duty on opium sold to licensed vendors, and the remainder from sales to Feudatory chiefs. During the decades ending 1890 and 1900 the corresponding figures were 7 and 6·6 lakhs, respectively. The consumption of the drug decreased in the last decade owing to the impoverishment of the people caused by the famines, and the effects of this still remain. A large amount of smuggling is carried on from the Native States adjoining the Vindhyan and Narbadā valley Districts, and special measures for the repression of this have recently been taken.

Up to 1874 the salt tax was mainly levied by the imposition of duty at a customs line, which in the form of a giant hedge of thorns barred the Provinces from the salt-producing regions of Rājputāna on the north, and Bombay and Madras on the west and south. No salt is produced in the Province, and no revenue is therefore now raised directly within it. The consumption has increased from 43,000 to 53,000 tons during the decades ending 1890 and 1900 respectively to 60,000 tons in 1904; the consumption per head of population was 8 lb. in 1881, 10 lb. in 1891, 13 lb. in 1901, and 13·2 lb. in 1904. The revenue payable on the salt consumed in the Province was 25·5 lakhs in 1881 and 32 lakhs in 1904, though the duty was 8 annas per maund lower in the latter year. The incidence of duty per head of population was 3 annas 9 pies in 1881, and 4 annas 4 pies in 1904.

Ever since the constitution of the Province in 1861, the problem of regulating the system of taxation and vend of intoxicating liquors to satisfy the varying requirements of different parts of the country has

pressed for solution, while an exhaustive inquiry on the subject has recently been conducted with a view to placing the excise administration on a more satisfactory basis. Prior to the changes introduced on the recommendation of the Excise Committee (1904) three systems were in force, designated respectively the modified bonded warehouse, the central or *sadr* distillery, and the out-still systems. The liquor is almost invariably distilled from the flower of the *mahuā*-tree (*Bassia latifolia*). The modified bonded warehouse system was in force in Nāgpur and the greater part of Nimār. Under this, liquor was manufactured at a central distillery under Government supervision and of a prescribed strength. It was removed to Government bonded warehouses and issued to retail vendors at a fixed rate, varying from Rs. 1–14 to Rs. 4 a gallon according to the strength of the liquor. The manufacturing contractor tendered for the rate at which he would supply the liquor, and the difference between this and the price charged to retail vendors was the Government duty. The contract rates of manufacture varied between 9 annas and R. 1 for liquors of different strength. The retail vendors obtained their licences by auction and paid licence fees. The *sadr* distillery system was in force at most District head-quarters, and in some other towns in open parts of the country. Under it a central distillery was maintained for the supply of a radius of 10 or 12 miles round the town, and liquor was distilled and removed to outlying shops for sale. The distillation was carried on under Government supervision, and duty was charged at the rate of from 1 to 4 annas per seer on the quantity of *mahuā* used, the contractor being free after payment of this duty to manufacture and retail the liquor at his discretion. The same contractor usually held the rights of manufacture and of retail vend. The report of the Excise Committee (1904) showed that the system had many defects, the checks to the smuggling of untaxed *mahuā* being quite inadequate, while the machinery for distillation was inefficient and the quality of the liquor produced inferior. There were 26 *sadr* distilleries in the Province in 1903–4, and the area supplied by them was approximately 11,449 square miles. Over the rest of the Province the out-still system was in force, under which the right of distillation for a small circle of villages was disposed of by auction, and the contractor made and sold the liquor at his discretion. In 1903–4 there were 1,929 out-stills in British Districts, the number having been reduced from 2,250 since 1889–90. The total number of places of retail vend was 6,811, or one to every 9¼ square miles. About 60 per cent. of the revenue on country liquor was raised from central distilleries and 40 per cent. from out-stills. No control is exercised by Government over the sale of liquor in the Feudatory States. The liquor made by simple fermentation from the sap of palm-trees, called *tāri*, is subject to taxation.

It is consumed to a small extent in Nāgpur, Wardhā, Chānda, and Nimār Districts, and the right to manufacture and retail it is sold annually by auction, the licence fees amounting to Rs. 24,500 in 1903–4. The only imported spirit of which statistics are kept is Indian rum manufactured at Shāhjahānpur. The imports of this spirit during the decade 1891–1900 averaged 6,015 gallons, and had increased to 11,188 gallons in 1903–4. Its sale is practically confined to the large towns, where it is preferred by educated natives and Eurasians to the impure *mahuā* spirit. A brewery was started at Jubbulpore in 1896. The receipts from foreign liquors in 1903–4 were nearly Rs. 17,000, derived almost entirely from the beer duty and fees on licences. The average receipts during the decades 1881–90 and 1891–1900 were Rs. 5,700 and Rs. 22,400 respectively.

The hemp plant is cultivated under licence for the production of *gānja* in Nimār District, which furnishes the supply for the Central Provinces and Berār, the area cultivated in 1903–4 being 150 acres. Wholesale vendors are appointed by tender for each District or *tahsīl*, who purchase the drug from the storehouse and are bound to sell it to retail vendors at a fixed price of Rs. 5 per seer, the Government price being Rs. 4, and the proportion of the remaining rupee which the contractor is to pay to Government being settled by tender. The Government price was raised to Rs. 5 per seer in 1906 and a new system was introduced, licences for wholesale vend being granted to suitable applicants without restriction, and the rate at which the drug is obtained by retail vendors being left to be settled by competition. For retail vend, shops are opened at suitable places, and disposed of separately by auction, the number of permanent shops for retail vend of *gānja* in 1903–4 being 1,004. *Bhang* is charged with a Government duty of Rs. 2 per seer. The consumption of *gānja* and *bhang* in the British Districts of the Central Provinces in 1903–4 was 812 maunds (*gānja* 750 maunds, and *bhang* 62 maunds): and the revenue realized amounted to 2·16 lakhs, of which 1·20 lakhs was obtained from duty, and Rs. 96,000 from licence fees. The average receipts during the decades ending 1890 and 1900 were 1·6 and 2·3 lakhs respectively. *Gānja* is supplied to the Feudatory States either free or at a reduced rate, on condition that the price charged to retail vendors is the same as in British territory.

The gross excise revenue, excluding opium, in 1903–4 was 19·50 lakhs, of which 16·55 lakhs was obtained from country liquor, while the charges for collection amounted to only Rs. 65,000, giving a net revenue of 18·85 lakhs. The average gross receipts during the decades ending 1890 and 1900 were 16·3 and 17·6 lakhs respectively, the corresponding figures for country liquor, which is the chief item of the revenue, being 14·2 and 14·7 lakhs. The incidence of revenue per

head of population has varied between 3 annas 6 pies and 3 annas 1 pie during the last two decades. The local administration of the excise revenue has hitherto been conducted by the Deputy-Commissioners of Districts, with one or two subordinate officials, under the supervision of an Excise Commissioner for the Central Provinces and Berār. In 1905 sanction was given for the employment of a greatly increased and specialized establishment. Native opinion on the supply of intoxicating liquors is neutral, and there is no feeling in favour of prohibition or local option. The effect of English education is in some cases to lead members of the higher castes to disregard their caste rules on prohibition, and to take to drinking alcoholic liquor; but this class usually prefers imported spirits.

The report of the Excise Committee, issued at the end of 1904, recommended an entire change in the present administration. The basis of the scheme proposed is a system of large contracts with competent distillers, who will use their own premises for the supply of a prescribed area at a fixed price for manufacture. Liquor of high strength will be distilled and conveyed to bonded warehouses, the cost of carriage being distributed over all issues by fixing a price to cover it, and the contracts for manufacture and vend will be completely separated. Still-head duty is to be levied at three different rates, Rs. 3–2, Rs. 1–14, and R. 0–15 per proof gallon, to allow for the varying conditions of development of different parts of the country. The duty and cost of manufacture will be paid by the retail vendors on removal of the liquor from the bonded warehouses. The new scheme must be introduced gradually, in order to obtain experience in working it, but may ultimately be extended to the whole Province, with the exception of a few of the more densely-wooded tracts on the Sātpurās and the southern and eastern *zamīndāris*, for which out-stills would be retained. The proposals of the Committee were given effect to in five Districts in 1905–6.

The following figures show the average net revenue from sales of judicial and non-judicial stamps during the decades ending 1890 and 1900, and the net revenue in the year 1903–4, in thousands of rupees:—

	1881–90	1891–1900.	1903–4.
Judicial stamps . .	9,46	11,33	9,92
Non-judicial stamps .	4,05	4,60	4,17

The demand for each class of stamps continued to increase steadily up to 1893–4, when the combined revenue was 17·2 lakhs, or 12·2 for judicial and 5 lakhs for non-judicial stamps. The revenue then began to decline owing to the bad seasons, which seem to have affected the sales of both classes of stamps to an equal degree. The lowest

combined figure was 12·7 lakhs in 1900–1, to which judicial stamps contributed 9 lakhs and non-judicial 3·7.

Previous to the introduction of the Income Tax Act in 1886, non-agricultural incomes had been taxed under the Pāndhri Act. The receipts from the income-tax during the years 1886–90 averaged 4 lakhs, and during the decade ending 1900 6·5 lakhs. The receipts have gradually declined since 1893–4 owing to losses on account of bad harvests, and amounted in 1903–4 to 2·9 lakhs, the incidence per head of population being 6 pies, and the number of assessees 1·6 per 1,000. The *pāndhri* tax, which yielded only Rs. 70,000, was abolished in 1902.

Local and municipal.

Municipal administration was first introduced under the Punjab Municipal Acts of 1864 and 1867, which were made applicable to the Central Provinces. The municipality of Nāgpur dates from 1864, and in 1867 forty-three towns received a municipal constitution. A special Act was passed for the Central Provinces in 1873, and revised Acts were enacted in 1889 and 1903. The principal points in which the earlier form of municipal self-government differed from that prevailing at present were that the executive officers of Government were usually *ex-officio* members and presiding officers of municipal committees, that the municipalities maintained their own police force, and that they did not manage their own schools, pounds, dispensaries, and some other local institutions. In 1888 the number of municipal towns was fifty-seven; but between that year and 1901 several of the smaller municipalities were abolished, reducing the number in 1903-4 to forty-six, while similar action in respect to other towns is in contemplation. One municipal town, Nāgpur, has a population of over 100,000, nineteen of between 10,000 and 100,000, and twenty-six below 10,000. The total population resident within municipal limits in 1903-4 was 681,851. The total number of members of municipal committees in the same year was 576, of whom 178 were nominated by Government and 398 elected; 125 of the members were officials and the remainder non-officials; 62 were Europeans. Not less than two-fifths of the members of a committee must be persons other than the salaried officers of Government.

The aggregate income of municipalities in 1903–4 was 19·2 lakhs. In three towns—Nāgpur, Jubbulpore, and Khandwā—the receipts exceeded a lakh, and in nineteen towns they were below Rs. 10,000. The incidence of municipal taxation per head was Rs. 1–9–5, and of income Rs. 2-8-0. The main head of receipt is octroi, from which 9·7 lakhs was obtained in twenty-five municipalities in 1903–4, less 3·11 lakhs refunded on goods in transit. Water rate, conservancy cess, and taxes on houses and lands, on animals and vehicles, tolls and market dues are the chief sources of income. The aggregate expenditure in 1903–4 was 17·6 lakhs, of which 4·88 lakhs was spent on administration and

collection, 2·31 lakhs on water-supply (including Rs. 29,000 on drainage), 2·64 lakhs on conservancy, Rs. 73,000 on hospitals and dispensaries, 1·34 lakhs on roads and buildings, and 1·57 lakhs on public instruction.

Water-works have been constructed in ten towns[1], and surface drainage schemes are in process of completion in Nāgpur and Jubbulpore, and exist in a few other towns. There is no pipe-drainage, and night-soil and sweepings are always removed in carts. Little or no provision has as yet been made for protection from fire. Municipalities are as a rule not indebted, but a few loans have been taken from Government for water-works. The total amount of loans now outstanding is 9·77 lakhs. Viewed generally, municipal self-government may be considered to have successfully taken root in the Central Provinces; and though the majority of the people as yet care little for it, much useful work is done gratuitously by a small number of non-official gentlemen, principally pleaders and also bankers and landowners.

Complete authority for the disposal of Local funds was vested in the Chief Commissioner in 1863. Their management was at first entrusted to a local committee for each District, consisting of the Commissioner, Deputy-Commissioner, and other nominated members. This arrangement lasted until the passing of the Local Self-Government Act, I of 1883, which provided for the creation of local administrative bodies. The basis of the scheme is a local board for each *tahsīl* and a District council for the whole District area. The constitution of the local boards is as follows. A certain proportion of members are village headmen, each of whom is elected by the headmen or *mukaddams* of a circle of villages as their representative. Another proportion are representatives of the mercantile and trading classes, and are elected by members of those classes. A third proportion, not exceeding one-third of the whole, consists of members nominated by Government. The constitution of District councils is similar to that of local boards. Each local body has a chairman and secretary, elected by the members subject to the approval of Government. The officers of the District councils are frequently non-officials, but it is generally found convenient that the *tahsīldār* and *naib-tahsīldār* should be chairman and secretary of the local boards. In 1903–4 there were seventeen District councils, or one for each District except Mandlā, which is excluded from the Act. The total number of members was 328, of whom 84 were nominated, 58 representatives of the mercantile classes, and 186 elected by local boards. The number of local boards was 55, each *tahsīl* usually having one board, while in some cases a separate board is constituted for the large *zamindāri* estates. These boards had 891 members, of whom 214 were nominated, 148 elected by the mercantile classes, and 529 representative village headmen.

[1] Rāj-Nāndgaon, a municipal town in the Feudatory States, also has water-works.

The District councils have no powers of taxation, and their income is derived from the following sources: the net proceeds of the road and school rates, the former fixed at 3 and the latter at 2 per cent. on the land revenue; the surplus derived from fines in cattle-pounds; the proceeds of public ferries; rents and profits from Government land outside municipal limits; and contributions from Provincial revenues. Their duties consist in the allotment and supervision of expenditure on the objects for the maintenance of which their income is raised. Formerly the upkeep of all roads other than the main Provincial routes was entrusted to the District council. But it soon became clear that an unprofessional committee could not discharge these duties satisfactorily, and the management of all except village tracks has now been transferred to the Public Works department. Arboricultural operations have also been generally made over to the Public Works department. Contracts for the collection of tolls at ferries are sold annually by auction. The maintenance of rural schools, the provision of buildings and apparatus, and the appointment of masters rest with the District council, subject to the supervision and advice of the Deputy-Commissioner and Inspector of Schools. Pounds are under the control of the District council, and are managed by either the police, schoolmasters, or clerks appointed for the purpose. Contributions for expenditure on dispensaries, vaccination, and village sanitation are made to the dispensary fund, and veterinary dispensaries are maintained and managed by the District council, which also makes provision for village sanitation. Expenditure on famine relief is in the first instance a charge on District council funds, and 1·24 lakhs was spent for this purpose between 1895 and 1902. But if distress becomes at all severe the amount available from District funds is entirely inadequate, and the burden must be transferred to Provincial funds. The local boards have no independent income, but submit to the District council a statement of their requirements and an estimate of their probable expenditure, and the District council makes allotments of funds to each local board. Their principal duties are the supervision of expenditure on schools, wells, and village roads.

The total receipts of District funds in 1903–4 were 11½ lakhs, of which 4·38 lakhs was realized from Provincial rates (that is, the road, school, and postal cesses), 1·51 lakhs from pounds, and Rs. 35,000 from ferries, while contributions from Provincial revenues amounted to 2·9 lakhs. Their total expenditure was 11·74 lakhs, of which Rs. 43,000 was spent on general administration, 4·12 lakhs on education, 1·09 lakhs on medical relief, Rs. 20,000 on scientific and other minor objects, and 3·17 lakhs on civil works including contributions to the Public Works department. Nearly two lakhs on each side of the account are nominal income and expenditure.

The Public Works department in the Province is controlled by a Chief Engineer for the Central Provinces and Berār, who is also secretary to the Chief Commissioner. There are two Superintending Engineers for roads and buildings: one in charge of the Second Circle, comprising the Jubbulpore and Nerbudda Divisions, and the other of the First Circle, which includes Berār and the Nāgpur and Chhattīsgarh Divisions. A third Superintending Engineer is in charge of irrigation in the Province as a whole. For roads and buildings the Province is divided into eight divisions in charge of Executive Engineers, seven comprising the eighteen Districts of British territory, and one, called the Chhattīsgarh States division, including the Feudatory States and large *zamīndāri* estates of the Chhattīsgarh Districts, in which the expenditure on public works is provided by the estates concerned. For irrigation three separate divisions have been constituted. The Warorā colliery was under the Provincial Public Works department and had a separate manager until 1906, when it was closed. There are no State railways in the Province, and no railway branch of the Public Works department. The superior Provincial establishment now comprises 48 Engineers, of whom 11 are temporary.

Public works.

Buildings belonging to the Postal and Telegraph departments are Imperial, but are maintained by the Provincial Public Works department out of Imperial funds. Military buildings are in some stations under the Public Works and in others under the Military Works department. The other Government buildings in the Province are either Provincial or local. The local roads and buildings consist of surface roads and unimportant buildings, such as rural and municipal school-houses, which are under the charge of municipalities and District councils. All other buildings and roads are Provincial, and their construction and maintenance devolve on the department. The annual expenditure during the decades ending 1890 and 1900 averaged 18 and 16 lakhs respectively. In the last few years the expenditure has largely increased, the figure for 1901–2 being 20 lakhs, and that for 1903–4 28 lakhs. These figures exclude famine expenditure from 1896 to 1903, which amounted to a total of 321 lakhs. The most important buildings that have been constructed recently are the three Central jails, the District office at Jubbulpore, the reformatory school, Jubbulpore, the new Public Offices, the Mayo Hospital, and Government House, at Nāgpur. The Victoria Technical Institute now under construction is estimated to cost 1·5 lakhs, while new Secretariat buildings are about to be undertaken at a cost of $4\frac{1}{2}$ lakhs.

Eleven towns in the Province are now supplied with water-works, all of which have been opened since 1890, at a total cost of 25 lakhs. No regular drainage works are in existence, but projects for surface drainage

are at present being carried out in Nāgpur and Jubbulpore, while small sums have been expended in other towns. A contract for the construction and working of electric tramways in Nāgpur by an English firm is under consideration.

In 1892 a separate division of the Public Works department, under an Executive Engineer, was formed for the construction of roads and buildings in the Feudatory States and large *zamīndāri* estates of Chhattīsgarh. From that year to 1904 a sum of 5·6 lakhs has been expended on the construction of roads and 6·09 lakhs on buildings. The buildings erected consist of public offices, schools, dispensaries, and residences for the families of the chiefs and *zamīndārs*. The total expenditure of the division during the same period was over 20 lakhs.

Army.

The strength of the British and Native army stationed within the Province on June 1, 1903, was 2,018 British and 2,647 Native troops: total, 4,665. The Province falls within the Mhow division of the Western Command. The military stations in 1905 were Jubbulpore, Kamptee, Saugor, Sītābaldī, and Pachmarhī. The Nāgpur Volunteer Rifles have their head-quarters at Nāgpur The total number of volunteers within the Province in 1903 was 1,273.

Police and jails.

The police force was constituted in its present form on the formation of the Province, the previously existing Nāgpur Irregular Force being disbanded and the most efficient men drafted into the local police. The *zamīndāri* estates with an area of 19,000 square miles were for a time excluded from the jurisdiction of the force, the *zamīndārs* being allowed to make their own police arrangements; but the whole of this area is now under regular police administration In municipal towns a separate police force was maintained by the municipality until 1882. The force has been slightly increased on several occasions, generally in consequence of fresh duties being imposed on it. In 1891 the numbers of the mounted police were reduced, and an increase was made in the remuneration of inspectors, head constables, and constables. The pay of inspectors ranges from Rs. 100 to Rs. 200, of sub-inspectors from Rs. 50 to Rs. 80, of head constables from Rs. 12 to Rs. 30, and of constables from Rs. 6 to Rs. 8. In 1904 the force consisted of 26 European officers, 48 inspectors, 174 sub-inspectors, 1,226 head constables, and 7,258 constables, besides 111 cantonment police, or a total of 8,843 of all ranks. This strength was equivalent to one man for 9 square miles of area and for 1,095 persons of the population. The total cost was 15½ lakhs. The superior officers comprise an Inspector-General, whose jurisdiction extends also over Berār, 18 District Superintendents, and 11 Assistant Superintendents. The pay of the police in the cantonments of Kamptee and Saugor is met from

cantonment funds, but they are under the orders of the District Superintendent. On three railways special railway police are employed, and on others the Provincial force. A special reserve of 200 men is distributed over the head-quarters of six Districts, which is intended to deal with armed disturbers of the peace in whatever quarter they may appear. The men composing this reserve are regularly drilled and armed with rifles. The ordinary reserve and District police have breech-loading smooth-bores or carbines. The mounted police number only 95, and are stationed at the head-quarters of Districts.

European officers of police are now recruited chiefly in England. Native officers are usually appointed by promotion from the lower grades, and nearly all the superior executive officers have risen from the rank of constable. A police training school for the Central Provinces was established in 1905. A large proportion of the native officers are Muhammadans. Constables are enlisted by the District Superintendent, preference being given to literate men and to inhabitants of the locality. A considerable section of the force, however, consists of recruits from Northern India, generally the United Provinces. The majority of constables are high-caste Hindus, but 1,316 belong to low castes, including 121 Gonds, and more than half are illiterate. Constables are required before confirmation to obtain a certificate involving a knowledge of drill and musketry, the definitions of common offences, and elementary rules of police action and their duties on beats. Head constables must pass an examination in the methods prescribed for the handling of crime, the criminal law, and the general duties of the police. The difficulty of obtaining suitable recruits has become acute in some Districts, where the wages of ordinary or factory labour compare favourably with those of police constables. The service is generally considered not sufficiently attractive to obtain a good class of men; and the causes advanced in explanation are the recruitment of native officers from the ranks, the inadequate pay of the lower grades, and the insufficient number of more highly paid appointments. Measures for a general improvement in the pay and prospects of the police are now being carried out.

Identification by means of anthropometry was introduced in 1895, and the finger-tip impression system was substituted for it in 1898. A central bureau is maintained at Nāgpur for dealing with criminals who range over more than one District or Province, the identification of local criminals being left to the District police. More than 19,600 slips of ex-convicts were on record in 1904, and the system has proved very successful. A reformatory school for juvenile offenders is maintained at Jubbulpore and had 125 inmates in 1904.

The Central Provinces have no village police as the term is understood in some other parts of India. The village watchman or *kotwār*

is the subordinate of the village headman and not a police official, and it is considered very desirable to maintain his position in this respect. The duties of the watchman are to report births and deaths, the commission of offences, and the residence of professional criminals; and to do this he must proceed once a week to the police post to which his village is attached. He must also assist the police in the detection of crime in his village. There is generally a watchman for every inhabited village, and large villages have two or more. Their remuneration is now paid in cash and is about Rs. 3 per month. The watchmen generally belong to the lowest castes, and are illiterate, but perform their duties efficiently.

The following table gives statistics of cognizable crime:—

	Average for five years ending 1901	1902	1904.
Number of cases reported	34,579	21,532	21,725
Number of cases decided in criminal courts	16,718	10,429	11,139
Number of cases ending in acquittal or discharge	2,337	1,675	2,361
Percentage of cases ending in acquittal or discharge to total cases decided	14	16	21
Number of cases ending in conviction	14,381	8,754	8,778
Percentage of cases ending in conviction to number of cases decided	86	84	79

The Province contains 3 Central and 15 District jails, and 1 subsidiary jail. The Central jails are at Nāgpur, Jubbulpore, and Raipur, and also serve as District jails for those Districts. Each of the other Districts has a jail at its head-quarters, and Sironchā, owing to its distance from the District head quarters at Chānda, has a subsidiary jail. The jails contain accommodation altogether for 4,921 male and 498 female prisoners. During 1904 the average daily number of prisoners in all the Central jails was 2,020, and in the District jails 1,134. Long term prisoners are transferred from District to Central jails, provided that they are in a fit state of health for hard labour. The health of the convicts is generally good and the death-rate favourable, though it was increased in the years of famine by the admission of many prisoners in a bad state of health. The average cost of maintenance per prisoner in 1904 was Rs. 88. A Central jail is under a Superintendent who is a member of the Indian Medical Service, while a District jail is managed by the Civil Surgeon of the District. Each of the three Central jails has its distinctive industry, directed towards supplying the wants of the consuming departments of Government. Weaving is carried on at Jubbulpore, and mats, towels, pillow-cases, and other articles are manufactured for the Supply and Transport department.

To the Nāgpur jail is entrusted the printing of the forms required for use by all the Government departments of the Central Provinces, while the Raipur jail produces the annual supplies of clothing required by the Police and Jail departments. At District jails the recognized industries are stone-breaking, oil-pressing, and the manufacture of aloe-fibre. The total expenditure on the Jail department in 1904 was 2·79 lakhs, and the receipts from manufactures Rs. 1,25,000.

Education.

Neither the Marāthā government nor its subjects recognized any duty on the part of the state to educate the people, and the present system of popular education is entirely the outcome of British ideas. The establishment of vernacular schools in the Saugor and Nerbudda Territories was commenced on a substantial scale in 1854. At this time these Territories contained about 270 vernacular schools and 2,500 scholars. In the southern Districts, outside Nāgpur, which had several schools, education was practically confined to the Brāhman caste. Itinerant schoolmasters held classes on the main routes for pilgrims, and at the larger temples instruction in Sanskrit was given to Gosains and other religious mendicants. In Chhattīsgarh there was practically no education at all. The Educational department was constituted in 1862, and the scheme then drawn up has remained the basis of the system of public instruction to the present day. The leading principles laid down were that the department should content itself with the direct management of colleges and higher secondary schools, the training of teachers, and inspection work in rural areas. The maintenance of rural schools should as far as possible be left to the local authorities, every encouragement should be afforded to private enterprise and philanthropy, and no Government schools should be founded where there existed a sufficient number of institutions capable, with assistance from the state, of supplying the local demand for instruction. In 1863, 1,169 schools with 21,353 pupils had been established, and the annual expenditure was about a lakh. By 1881 there were 1,437 schools with 79,551 pupils. In 1884–5 the management of rural schools was made over to District councils; and in 1891 the number of institutions had risen to 1,845 with 111,498 pupils, including 3 colleges and 10 high schools. Strenuous efforts have been made recently for the development of primary education. In 1903–4 there were 2,494 schools of all classes with 167,178 pupils, this being the best result ever attained.

At the head of the Educational department is the Director of Public Instruction, who has a staff of four Inspectors for British Districts, and an Inspectress for all girls' schools. The Indian Educational service includes these appointments with the exception of one Inspectorship of Schools, and also those of the principal, Jubbulpore College, and the superintendent of the Training Institution for Teachers, Jubbulpore.

An Agency Inspector supervises the schools of the Feudatory States, but this is a private appointment outside the cadre of the Educational department. Each Inspector has a circle of several Districts and inspects each rural school on an average about every third year. Secondary schools are inspected once or twice a year. In each District are one or more Deputy-Inspectors under the orders of the Deputy-Commissioner, though their training and appointment rest with the Educational department. There were twenty-nine Deputy-Inspectors in 1904. The Provincial Educational service includes the appointments of one Inspector of Schools and some professors of the Jubbulpore College, and the Subordinate service those of Deputy-Inspectors and the training staff in Government secondary schools. The greater number of the middle and primary schools are controlled by municipal committees and District councils; and the teachers in them are the servants of these bodies, with whom their appointment and dismissal rest, subject to certain powers of control exercised by the department. In the considerable number of schools maintained by missions or other private associations, the teaching staff are the private servants of their employers.

The Province has three colleges—a Government college at Jubbulpore, and the Morris and Hislop Colleges at Nāgpur. The first of these was affiliated to the Allahābād University in 1891, and the other two were transferred from the Calcutta to the Allahābād University in 1905. The Morris College is managed by a committee and the Hislop College by the mission of the Scottish Free Church, but both receive grants from Provincial and Local funds. The Jubbulpore College teaches up to the B.A. and the two Nāgpur Colleges up to the M.A. degree. Statistics of University results are shown below:—

	Passes in				
	1881.	1891.	1901.	1903.	1904.
Matriculation	51	103	121	191	148
First or Intermediate in Arts or Science	16	39	50	27	61
Ordinary Bachelors' degrees	...	19	27	28	12
Higher and special degrees	...	...	2	...	1

In 1904 the Jubbulpore College had 70 students, the Morris College 99, and the Hislop College 108. Hostels are attached to the Jubbulpore and Hislop Colleges, and to four high schools. No student can now be admitted to a college or any class of school, unless he lives either with his parents or suitable guardians, or in a hostel recognized by the Director of Public Instruction.

Institutions for secondary education are divided into two grades, high

schools and middle schools. The high schools prepare pupils for the matriculation or university entrance and the school final examinations. The lower secondary schools are called middle schools of the first or second grade. They may be either English or vernacular. The vernacular middle schools are merely primary schools with one or two extra classes attached according as they are second or first grade, thus continuing the course of primary education for one or two years longer. In high schools and the highest classes of English middle schools instruction is given in English. The curriculum for the school final test consists of English reading, grammar, and easy composition, elementary history, geography, and mathematics, including algebra and Euclid, and physics and chemistry, or an Indian classical language. In 1904 there were 27 high schools, 5 supported by Government and 22 under private management, of which 12 were in receipt of Government grants. The number of English middle schools was 79, 70 in British territory and 9 in the Feudatory States. Of the former 7 were maintained by Government, 26 by municipalities, 3 by District councils, and 34 by private persons, 28 of these last being in receipt of Government grants. Vernacular middle schools numbered 155, of which 19 were in the Feudatory States. All those in British territory were supported by municipalities or District councils. In 1904 the high schools contained 1,174 pupils, the English middle schools 6,091, and the vernacular middle schools 19,902 pupils, 2·1 per cent. of the boys in British Districts being in receipt of secondary education in these schools.

Important reforms have recently been introduced in both subject-matter and methods of teaching in primary schools. Ocular demonstration and instruction by object lessons are insisted on as far as possible. Besides reading, writing, and counting, the course of instruction in primary schools now comprises simple lessons in the structure and growth of plants and methods of agriculture, the preparation of the *patwāri's* village records and registers, the incidents of the different land tenures, the local law of landlord and tenant, and the system of accounts kept by the village money-lenders. A small quantity of Hindu poetry is also learnt by heart. In order to meet the objections of cultivators to being deprived of the services of their children in the fields so that they may attend school, a half-time system has been introduced, by which the children go to school only from 7 to 10 a.m. The masters in primary schools have usually passed through a two years' course in a normal school, in which they are trained to teach intelligently and not by rote. The average pay of a master is Rs. 10 per month. Many schoolmasters receive extra pay for managing village post offices or cattle-pounds, and a few are sub-registrars, and in important schools the pay of the master is usually Rs. 20 a month. In 1904 the number of primary schools for boys was 2,053, of which 28 were maintained by

Government, 1,566 by municipalities and District councils, 281 by the Feudatory States, and 178 by private persons or associations, of which last 117 received grants-in-aid from Government. The total number of boys in receipt of primary education in British Districts was 112,756, or 17 per cent. of the population of school-going age.

Female education is still in its infancy, but considerable strides have been made in recent years, as is shown by the following statistics of schools and scholars at the end of the last three decades and in 1903–4: (1881) 82 schools with 3,454 pupils; (1891) 135 schools with 7,583 pupils; (1901) 188 schools with 11,208 pupils; (1903–4) 196 schools with 13,630 pupils. Of the total number of girls of school-going age, 1·4 per cent. are now in receipt of instruction, but the vast majority are in primary schools. The attitude of the people towards female education is indifferent or even obstructive. Generally girls of the lower castes only are sent to school. The best girls' schools are under the management of missionary societies. An important change in the management of female education was made in 1902, by the transfer of girls' schools from the control of local bodies to that of the Government. The course of study in girls' schools is nearly the same as for boys, except that needlework is taught as a compulsory subject and the lessons in agriculture and tenures are omitted.

Among the special educational institutions the following may be mentioned. A Training Institution at Jubbulpore prepares teachers for high, middle, and primary schools. There are also two normal schools for male and two for female teachers in primary schools. An Agricultural school at Nāgpur prepares candidates for appointments in the subordinate Revenue and Court of Wards establishments, and has classes for the instruction of primary schoolmasters and the sons of landowners in practical agriculture. An Engineering school at Jubbulpore is designed to train candidates for the lower subordinate appointments of the Public Works department, and of road-overseers for local bodies. Two industrial schools for European and Eurasian children are maintained by the St. Francis de Sales Order in Nāgpur, while several industrial schools for native children are managed by different missionary societies, but are not shown in the educational returns. The Rājkumār College at Raipur under a European principal has been established for the instruction of the sons of feudatory chiefs and *zamīndārs*.

Schools for European and Eurasian children number 17, all, with the exception of 3 railway schools, being under the management of Roman Catholic or Protestant missions. Of these, 8 give the whole educational course up to the high school standard, while one is a middle and 6 are primary schools. The total number of scholars is 1,346. In 1904, 9 pupils passed the matriculation examination, and 3 the school final.

After leaving school, the students generally enter the railway and telegraph departments or the various public offices.

Muhammadans in the Central Provinces are usually well educated as compared with the general population, the reasons being that nearly half of the whole number live in towns, and also that a large proportion of them are recent immigrants of good social standing. In 1904, 40 per cent. of boys and 2 per cent. of girls of school-going age were in receipt of instruction. The number of Muhammadan boys who take a university course is, however, small.

Among the depressed castes and aboriginal tribes there is as yet very little education, only 3 per cent. of boys among the forest tribes being at school. Great difficulty is experienced in persuading the forest tribes to send their children to school, and even when the children do go it is probable that only a few of them have sufficient power of concentration to learn successfully. For the impure castes separate schools still exist in the Marāthā Districts, and when low-caste boys attend the ordinary schools they are made to sit in the veranda and are not touched. But this prejudice is decreasing, while in the northern Districts separate schools are not required.

The following table shows the expenditure on education in 1903–4 :—

	Expenditure on institutions maintained or aided by public funds				
	Provincial revenues	District and municipal funds.	Fees	Other sources.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.
Arts and Professional colleges	27,388	1,500	16,164	17,029	62,081
Training and special schools	77,621	..	...	21	77,642
Secondary boys' schools	77,433	91,658	75,119	56,646	3,00,856
Primary boys' schools	30,346	2,96,928	14,640	70,485	4,12,399
Girls' schools	45,927	2,652	16,174	40,605	1,05,358
Total	2,58,715	3,92,738	1,22,097	1,84,786	9,58,336

The fees charged for pupils in colleges and schools vary with the income of the parents, ranging from Rs. 5 to Rs. 16 per month in colleges, from Rs. 2 to Rs. 8 in high schools, from 8 annas to Rs. 5 in middle, and from 1 anna to 8 annas in primary schools.

There is now one school to every 12 villages in British Districts, and one to every 3,772 persons. The percentage of children in receipt of instruction to those of school-going age was 4·6 in 1881, 5·9 in 1891, 7·3 in 1901, and 10 in 1903–4. At the Census of 1901, 327,486 persons, or 3 per cent. of the population, were returned as able to read and write, showing an increase of 70,575 during the preceding decade.

Nearly 6 per cent. of males are literate, but only two in 1,000 of females. Nimār, Jubbulpore, Narsinghpur, Nāgpur, and Hoshangābād are the most advanced Districts in respect of education, and the Chhattīsgarh Districts the most backward. Among Hindus, the Brāhmans, Baniās, and Kāyasths are enormously in advance of the rest of the community, 50 per cent. or more of adult males in these castes being able to read and write. Among the higher agricultural castes about 10 per cent. of adult males are literate, while the lower castes and forest tribes have only one literate male in 100. About a quarter of the adult Muhammadans can read and write, nearly half the Jains, and practically all Pārsīs. In respect of female education the Kāyasths alone among Hindus have made any visible progress, 2.6 per cent. of their women being literate. Pārsī women are nearly always educated. Practically all European and Eurasian adults are literate.

The development of the Press has taken place entirely during the last two decades, there having been only one private printing press in the Province in 1881. In 1904, 26 presses were in existence in ten Districts, and eleven papers were issued. Of these, one was published in Hindī and Marāthi, four in Marāthi, and five in Hindī. Two weekly papers are published in English in Nāgpur and Jubbulpore, and a Muhammadan paper in Urdū has a fitful existence in Jubbulpore. The native Press has very little influence, no paper having a circulation exceeding 500. The general tone of the papers is moderate and circumspect. In 1903, 34 original works were published, of which the majority were poetical and the remainder principally treatises on religion or languages.

Medical.

The record of the provision of institutions for medical relief is one of unbroken progress, which may be traced in Table XVI at the end of this article (p. 114). The work was commenced in 1861 on the first formation of the Province, and in that year 18 dispensaries were open and 33,000 patients treated. From 1885 the control of the majority of the dispensaries was made over to municipal committees and District councils. In 1904 the total number of dispensaries was 194, 28 of which were classified as state, 84 as maintained from Local funds, and 82 as private. The principal medical institutions are the Mayo Memorial Hospital, Nāgpur, opened in 1874, with accommodation for 80 in-patients; the Victoria Hospital, Jubbulpore, opened in 1886 and accommodating 64 in-patients; the Lady Dufferin Hospitals at Nāgpur and Raipur and the Lady Elgin Hospital at Jubbulpore, these last three being for females, and containing altogether accommodation for 64 in-patients. Besides the police hospitals, 62 other dispensaries also have accommodation for in-patients, while separate dispensing rooms for male and female patients have been made available in 90 institutions. The total number of persons treated in

all dispensaries in 1904 was 1,770,000, of whom 14,000 were in-patients, and the expenditure was 2·7 lakhs.

The Province has two lunatic asylums, at Nāgpur and Jubbulpore, both of which were opened in 1866. In 1904 they contained 290 lunatics, and cost Rs. 33,000. Out of 306 cases in which insanity was traced to a definite cause, 29 are shown as hereditary, congenital, or due to secret vice, 17 as occasioned by epilepsy or sunstroke, 30 by the consumption of drugs and spirits, 13 by fever, and 55 by mental distress. Since the passing of the Leprosy Act of 1898 a leper asylum has been opened by Government at Nāgpur, which contains at present 30 inmates. Besides this, 7 other leper asylums in Raipur, Bilāspur, Hoshangābād, and Wardhā are principally supported by missions, the asylum at Raipur town receiving also contributions from municipal and District funds. About 750 lepers are maintained in these asylums.

Vaccination is compulsory only in the municipal towns to which the Vaccination Act has been extended; but it is carried on by itinerant vaccinators all over the Province, including the Feudatory States, and though regarded by certain sections of the community with some dislike, it cannot be said that there is any general antipathy to the operation. Primary vaccination is usually successful in 97 per cent. or more of the total cases. Since 1880, the large majority of children born in British Districts have been vaccinated. Revaccination is performed only in from 10 to 15 per cent. of the cases of primary vaccination. The number of vaccinators employed in 1903–4 was 279, and on an average each vaccinated 1,800 persons. The cost was Rs. 50,000, including the Feudatory States, and the average cost of each successful case 1 anna 9 pies. Inoculation for small-pox was formerly practised, but no cases have been known since 1890.

The system of retailing pice-packets of quinine through the Post Office was introduced in 1893, although some desultory attempts at providing quinine had been made by local bodies since the year 1885. In 1893, 498 packets, each containing 102 one-pice powders of 5 grains, were issued to the post offices, the amount realized being Rs. 685. Since 1893 the sales have steadily increased; and in 1904, 4,781 packets, containing about 345 lb. of quinine, were issued at a cost of Rs. 5,030. Each packet now contains 7 grains. Besides postmasters, the services of schoolmasters, stamp-vendors, and *patwāris* are occasionally utilized as vendors.

In important villages, which are not sufficiently large to be made municipal towns, a small fund is raised for purposes of sanitation, either by a house tax, market dues, or cattle registration fees, the arrangements being in the hands of a small committee of the residents, or of the village headman. Simple rules for the disposal of sewage, the protection of the water-supply, and the preservation of cleanliness in the village

generally are then enforced. Funds for sanitary purposes were being levied in 69 villages in 1904. In all villages the headman is responsible for the enforcement of certain elementary sanitary precautions, and villages are inspected by officers on tour to see that these are carried out. Since 1888 a small sum has been allotted annually for the improvement of tanks and wells from which drinking-water is obtained, and this is supplemented by contributions raised in the villages where work is undertaken. The total amount spent in this manner from 1891 to 1904 was 12½ lakhs; and for this sum 688 tanks and 2,406 wells have been constructed, and 714 tanks and 5,702 wells repaired.

Surveys.

The work of the Great Trigonometrical Survey was completed in the Province in 1876, when 7,633 square miles had been surveyed by four series of triangles, two running from north to south through Jubbulpore and Bilāspur, and two from east to west through Jubbulpore and Sambalpur. A Topographical survey succeeded the Trigonometrical; but its operations were confined to hill and forest tracts, its object being to construct a topographical map on a scale of 4 inches to the mile by plane-table survey and sketching, and village boundaries were not marked. The Topographical survey was begun in 1862, and in 1873 operations in the Central Provinces were completed, an area of 28,000 square miles having been surveyed. In 1902-3 the resurvey of those areas which had been topographically surveyed was commenced, with a view to checking the accuracy of the existing maps. In the open and cultivated areas of the Province the traverse is now substituted for the topographical survey. This survey is carried out by the method of plane tabling, but on a basis formed by carrying traverses with theodolite and chain round the boundary of the village, in lieu of triangulation from prominent stations. These operations result in the construction of a skeleton map of each village, showing the position of a series of theodolite stations lying round the village boundary. A traverse survey was effected for the settlements of 1863 and subsequent years, and was accompanied by a cadastral survey by fields; but the two operations were carried on independently, and the measurements were plotted on different scales, one being used merely as a check on the other. A complete resurvey was found necessary for the new settlements of 1885 and subsequent years. On this occasion the traverse work was again done by the Survey department, commencing after 1884, and 73,000 square miles have been surveyed, the cost approximating to Rs. 26 per square mile. In the meantime the village *patwāris* or accountants were trained in field-plotting by means of the chain; and when they had become competent the skeleton village maps were handed over to them, and the cadastral or field-to-field survey was carried out on a scale of 16 inches to the mile. The cost of the cadastral survey was Rs. 36 per square mile. The

survey extended over 60,000 square miles, and included 47,000 square miles of cultivation, containing 22 million separately surveyed fields. The completion of the field map was followed by the preparation of a set of records giving full details of the ownership, tenancy, rent, and cultivation of every field in the village. From this paper a village rent-roll was drawn up. The field-maps and land records are annually corrected by the *patwāris*.

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TABLE I. TEMPERATURE IN THE CENTRAL PROVINCES

Station.	Height of Observatory above sea level	Average temperature in degrees (Fahrenheit) for twenty-five years ending with 1901 in							
		January.		May.		July.		November.	
		Mean	Diurnal range	Mean	Diurnal range	Mean.	Diurnal range	Mean.	Diurnal range
	Ft								
Jubbulpore	1,327	62.8	28.6	92.1	26.6	80.5	11.6	67.6	29.0
Hoshangābād	1,026	66.1	27.4	94.0	27.1	81.3	11.8	71.0	27.1
Raipur	970	68.2	24.8	94.3	25.2	80.9	12.0	72.1	22.5
Nāgpur	1,025	69.6	27.4	95.5	27.3	81.7	13.1	72.7	25.1
Pachmarhī (Hill station)	3,528	59.4	23.4	85.2	19.9	72.1	8.0	62.3	22.4

NOTE.—The diurnal range is the average difference between the maximum and minimum temperature of each day.

TABLE II. RAINFALL IN THE CENTRAL PROVINCES

Station	Average rainfall (in inches) for twenty-five years ending with 1901 in												
	January	February.	March	April	May	June.	July.	August.	September	October.	November.	December.	Total of year.
Jubbulpore	0.90	0.60	0.50	0.33	0.55	9.14	19.03	17.27	7.70	1.75	0.43	0.33	58.53
Hoshangābād	0.37	0.28	0.18	0.15	0.51	6.28	16.74	14.81	8.97	1.65	0.39	0.62	50.95
Raipur	0.35	0.55	0.65	0.64	1.00	8.89	15.22	13.12	7.55	2.21	0.40	0.24	50.82
Nāgpur	0.58	0.41	0.49	0.59	0.67	8.24	14.38	11.61	8.74	2.32	0.71	0.49	49.23
Pachmarhī (Hill station)	0.88	0.50	0.41	0.39	0.47	10.17	24.78	21.46	14.44	2.12	0.49	0.58	76.69

TABLE III. DISTRIBUTION OF POPULATION, CENTRAL PROVINCES, 1901

District or State.	Area in square miles.	Number of towns	Number of villages.	Total Population.			Urban Population.			Persons per square mile in rural areas
				Persons	Males.	Females.	Persons	Males.	Females.	
British Districts.										
Saugor	3,962	5	1,924	469,479	237,972	231,507	68,248	35,713	32,535	102
Damoh	2,816	1	1,116	285,326	143,488	141,838	13,355	6,746	6,609	97
Jubbulpore	3,912	3	2,298	680,585	335,552	345,033	110,048	56,893	53,155	146
Mandlā	5,054	1	1,834	318,400	157,061	161,339	5,428	2,756	2,672	62
Seonī	3,206	1	1,389	327,709	158,416	169,293	11,864	5,693	6,171	99
Jubbulpore Division	18,950	11	8,561	2,081,499	1,032,489	1,049,010	208,943	107,801	101,142	99
Narsinghpur	1,976	3	963	315,518	154,694	160,824	23,647	11,844	11,803	148
Hoshangābād	3,676	6	1,334	446,585	222,859	223,726	54,980	28,307	26,673	107
Nimār	4,273	3	921	329,615	169,167	160,448	52,831	27,250	25,581	65
Betūl	3,826	2	1,194	285,363	139,940	145,423	10,305	4,979	5,326	72
Chhindwāra	4,631	4	1,751	407,927	199,369	208,558	29,155	14,107	15,048	82
Nerbudda Division	18,382	18	6,163	1,785,008	886,029	898,979	170,918	86,487	84,431	88
Wardhā	2,428	5	901	385,103	193,815	191,288	43,455	22,391	21,064	142
Nāgpur	3,840	12	1,681	751,844	377,612	374,232	240,388	122,568	117,820	135
Chānda	10,156	2	2,601	581,315	287,227	294,088	28,429	14,441	13,988	55
Bhandāra	3,965	3	1,635	663,062	320,648	342,414	31,505	15,293	16,212	160
Bālāghāt	3,132	1	1,081	325,371	157,159	168,212	6,223	3,057	3,166	102
Nāgpur Division	23,521	23	7,899	2,706,695	1,336,461	1,370,234	350,000	177,750	172,250	101

TABLE III. DISTRIBUTION OF POPULATION, CENTRAL PROVINCES, 1901 (*continued*)

District or State.	Area in square miles	Number of towns.	Number of villages.	Total Population.			Urban Population.			Persons per square mile in rural areas.
				Persons.	Males	Females	Persons	Males	Females.	
British Districts (*cont.*).										
Drug . . .	3,807	1	2,047	628,885	297,998	330,887	4,002	1,889	2,113	164
Raipur . . .	9,831	3	4,051	1,096,858	532,675	564,183	47,764	23,989	23,775	107
Bilāspur . . .	7,602	3	3,258	917,240	445,789	471,451	30,323	14,984	15,339	117
Chhattīsgarh Division	21,240	7	9,356	2,642,983	1,276,462	1,366,521	82,089	40,862	41,227	120
Total, British Districts	82,093	59	31,979	9,216,185	4,531,441	4,684,744	811,950	412,900	399,050	102
Feudatory States.										
Makrai . . .	155	..	64	13,035	6,492	6,543	1,640	816	824	74
Bastar . . .	13,062	..	2,525	306,501	155,683	150,818	4,762	2,474	2,288	23
Kānker . . .	1,429	..	444	103,536	51,596	51,940	3,906	1,868	2,038	70
Nāndgaon . . .	871	1	515	126,365	60,110	66,255	11,094	5,447	5,647	132
Khairāgarh . .	931	1	497	137,554	65,699	71,855	10,512	5,074	5,438	137
Chhuikhadān .	154		107	26,368	12,596	13,772	2,085	1,019	1,066	158
Kawardhā . . .	798	..	346	57,474	27,962	29,512	4,372	2,056	2,316	67
Saktī . . .	138	.	122	22,301	10,885	11,416	1,791	899	892	149
Raigarh . . .	1,486	1	721	174,929	86,543	88,386	6,764	3,396	3,368	113
Sārangarh . . .	540	1	455	79,900	38,738	41,162	5,227	2,590	2,637	138
Chāng Bhakār . .	904		117	19,548	10,003	9,545	..	..	..	22
Koreā . . .	1,631	..	250	35,113	17,948	17,165	..	..	..	22
Surgujā . . .	6,089	..	1,372	351,011	177,961	173,050	..	..	..	58
Udaipur . . .	1,052	..	196	45,391	23,107	22,284	..	..	..	43
Jashpur . . .	1,948	.	566	132,114	66,647	65,467	..	..	..	68
Total, Feudatory States	31,188	4	8,297	1,631,140	811,970	819,170	52,153	25,639	26,514	51
GRAND TOTAL, Central Provinces . .	113,281	63	40,276	10,847,325	5,343,411	5,503,914	864,103	438,539	425,564	88

NOTE.—The Districts and States shown are those left in the Central Provinces after the redistribution of territory made in 1905. The District articles give later figures in some cases, owing to small administrative changes.

TABLE IV

Statistics of Agriculture, Central Provinces

(In square miles)

	1881-90 (average).	1891-1900 (average).	1901-2.	1903-4.
Total area	64,416	72,810	78,549	78,947
Total uncultivated area .	40,905	43,292	47,749	47,632
Cultivable, but not cultivated	13,857	19 219	23,642	23,439
Uncultivable	27,048	24,073	24,107	24,193
*Total cultivated area . .	23,511	29,518	30,800	31,315
Irrigated from wells and tanks	932	914	1,115	458
,, ,, other sources .	15	37	50	38
Total irrigated area . .	947	951	1,165	496
Unirrigated area . . .	22,812	25,302	25,779	29,010
Total cropped area . .	23,759	26,253	26,944	29,506
Rice	5,901	7,266	7,099	6 960
Wheat	6,260	4,451	4,096	4,566
Jowàr		2,543	3,070	2,792
Gram (pulse)		1,397	1,480	1,449
Kodon and *kutkī* . .		2,294	3,266	3,591
Arhar (*tūr*)	7,370	381	543	494
Urad, *mūng*, and *moth* .		700	757	1,249
Other food-grains . .		1,977	1,636	2,176
Linseed		1,500	953	1,264
Til	2,441	1,056	1,110	1,504
Other oilseeds . . .		463	585	581
Cotton	1,032	1,113	1,533	2,040
Sugar-cane	..	51	36	28
Fodder crops, orchards, and garden produce .	..	537	508	572
Miscellaneous crops . .	755	524	272	240
Double-cropped area . .	1,180	1,839	1,224	2,360

* Includes current fallows of three years and under.

Note.—Owing to the abnormal conditions, due to famine, prevailing in 1900-1, figures have been given in this and succeeding tables for 1901-2 or 1902, instead of for 1900-1 or 1901 as in other Provinces.

TABLE V

PRICES OF FOOD STAPLES, CENTRAL PROVINCES

(In seers per rupee)

Selected staples	Selected centres.	Average for ten years ending			Average for the year 1902	Average for the year 1904
		1880	1890	1900.		
Rice	Saugor	13	[illegible]	10	11	11
	Jubbulpore	15	14	14	11	13
	Hoshangābād	[illegible]	10	11	10	9
	Chhindwāra	13	13	10	11	13
	Nāgpur	16	15	12	11	13
Wheat	Saugor	20	21	12	13	15
	Jubbulpore	20	18	14	15	15
	Hoshangābād	16	17	13	13	15
	Chhindwāra	20	19	14	13	17
	Nāgpur	19	19	14	12	16
Jowār	Saugor	28	31	18	19	23
	Jubbulpore	24	23	18	19	26
	Hoshangābād	21	23	18	18	20
	Chhindwāra	26	25	19	18	26
	Nāgpur	26	25	19	18	18
Salt	Central Provinces	8	10	9	10	11

NOTE.—The years 1897 and 1900 have been excluded as being years of acute famine.

TABLE VI

Rail-borne Trade of the Central Provinces with other Provinces

(In thousands of rupees)

	1890–1.	1901–2	1903–4.
Imports.			
Coal and coke	5,13	8,95	16,56
Cotton, raw	1,95	20,63	42,00
,, twist and yarn . . .	29,20	31,12	44,19
,, piece-goods	57,48	70,74	89,73
Dyes and tans	7,30	8,88	9,90
Grain and pulse	6,70	57,43	16,62
Hemp and jute	15,43	13,29	20,27
Metals (wrought and unwrought) .	20,82	43,08	54,26
Oils	7,63	18,36	22,30
Provisions	28,32	27,36	39,80
Railway plant and rolling stock . .	15,82	7,94	17,53
Salt	45,78	54,16	48,62
Silk, raw and piece-goods	2,98	15,44	8,32
Spices	8,62	13,60	13,56
Sugar	38,34	55,86	59,92
Tobacco	11,02	9,54	10,73
All other articles . .	33,66	48,96	61,83
Total	3,36,18	5,05,34	5,76,14
Treasure	Not registered	1,17,83	2,03,01
Exports.			
Coal and coke	5,35	5,68	4,21
Cotton, raw	41,50	1,96,00	2,80,26
,, twist and yarn	2,38	26,46	24,65
,, piece-goods	15,16	32,45	32,90
Dyes and tans	8,80	11,44	9,51
Grain and pulse	1,98,25	77,85	1,91,64
Hides and skins	11,03	16,13	29,87
Hemp and jute	1,10	12,60	14,31
Lac	7,42	8,64	21,81
Metals (wrought and unwrought) .	2,64	9,57	14,29
Oilseeds	95,67	1,39,62	85,35
Provisions	9,98	74,11	64,02
Railway plant and rolling stock . .	10,26	46,01	53,76
Silk, raw and piece-goods . . .	28	66	1,21
Wood	Not registered	30,45	20,74
All other articles	59,66	42,10	43,20
Total	4,69,48	7,29 77	8,91,73
Treasure	Not registered	47,04	36,36

TABLE VII

Postal Statistics, Central Provinces

	1880–1	1890–1.	1901–2.*	1903–4.
Number of post offices	186	429	813	689
Number of letter-boxes	157	474	581	566
Number of miles of postal communication	4,465	5,979	9,770	8,411
Total number of postal articles delivered—				
Letters	†5,552,980	5,516,802	9,517,846	7,349,316
Postcards	†525,939	2,329,717	7,621,016	6,381,492
Packets	†119,772	289,911	‡942,994	‡850,824
Newspapers	†396,625	669,593	‖1,249,274	908,674
Parcels	†39,054	55,601	136,916	146,802
	Rs.	Rs.	Rs.	Rs.
Value of stamps sold to the public	1,11,811	2,10,156	3,24,953	3,77,550
Value of money orders issued	†30,08,110	67,92,610	1,26,44,754	1,09,25,822
Total amount of Savings Bank deposits	...	†23,10,976	38,91,305	35,50,732

* The figures for the year 1901–2, except for value of stamps, include those for Berar.

† These figures include those for Berar.

‡ Include unregistered newspapers.

‖ Registered as newspapers in the Post Office.

TABLE VIII

Statistics of Civil Suits, Central Provinces

Description of civil suits.	Average for ten years ending 1890.	Average for ten years ending 1900.	1902.	1904
Suits for money and movable property	88,374	69,617	55,836	55,060
Title and other suits	6,428	9,391	11,301	12,649
Rent suits	9,229	13,959	13,544	11,746
Total	104,031	92,967	80,681	79,455

TABLE IX

Criminal Statistics, Central Provinces

	Average for ten years ending 1890.	Average for ten years ending 1900.	1902.	1904.	Percentage of convictions, 1904.
Number of persons tried—					
(*a*) For offences against person and property .	27,386	32,055	22,671	20,309	37
(*b*) For other offences against the Indian Penal Code . .	3,963	3,668	3,550	3,438	33
(*c*) For offences against Special and Local laws	7,899	9,220	11,031	11,098	70
Total	39,248	44,943	37,252	34,845	50

TABLE X A

Principal Sources of Revenue, Central Provinces

(In thousands of rupees)

Sources of revenue.	Average for ten years ending March 31, 1890		Average for ten years ending March 31, 1900.		Year ending March 31, 1902.		Year ending March 31, 1904	
	Total amount raised (Imperial, Provincial, and Local).	Amount credited to Provincial Revenues	Total amount raised (Imperial, Provincial, and Local).	Amount credited to Provincial Revenues	Total amount raised (Imperial, Provincial, and Local).	Amount credited to Provincial Revenues	Total amount raised (Imperial, Provincial, and Local).	Amount credited to Provincial Revenues
Opening balance .	...	19,97	...	9,87	...	...	...	22,42
Land revenue . .	62,11	26,80	69,69	44,51	86,85	43,42	83 86	41,93
(Assignment from Imperial) . .	...	...	...	...	...	+38,23	...	+36,45
Stamps	13,81	9,26	16,29	12,22	15,58	11,68	14,51	10,88
Excise	23,36	11,80	24,01	6,00	19,51	4,88	25,60	6,40
Provincial rates .	6,85	2,08	10,21	2,13	15,62	3,03	11,32	2,46
Assessed taxes .	3,21	1,54	4,80	2,37	4,25	2,07	2,97	1,48
Forests	8,42	4,21	10,31	5,16	11,16	5,58	13,91	6,96
Registration . .	75	44	1,16	58	97	48	86	43
Other sources . .	24,28	16,51	10,90	7,72	16,45	7,97	11,67	9,18
Total receipts	1,42,79	72,64	1,47,37	80,69	1,70,39	1,17,34	1,64,70	1,16,17
Grand Total	...	92,61	...	90,56	...	1,17,34	...	1,38,59

TABLE X B

PRINCIPAL HEADS OF EXPENDITURE, CENTRAL PROVINCES

(In thousands of rupees)

	Average for ten years ending March 31, 1890.	Average for ten years ending March 31, 1900.	Year ending March 31, 1902.	Year ending March 31, 1904.
Charges in respect of collection (principally Land Revenue and Forests)	11,57	17,50	17,70	19,34
Salaries and expenses of Civil Departments—				
(a) General administration	3,52	4,58	4,98	6,20
(b) Law and Justice	12,53	14,54	15,21	16,31
(c) Police	12,72	14,29	14,69	15,25
(d) Education	5,10	3,68	3,78	4,89
(e) Medical	2,11	3,31	3,26	4,03
(f) Other heads	49	87	1,07	1,94
Pensions and miscellaneous civil charges	3,10	5,08	11,02	20,05
Famine relief	..	15	..	..
Irrigation	..	..	..	2,75
Civil public works	18,37	16,22	20,03	28,00
Other charges	76	1,39	1,71	1,57
Adjustments	51	1,28	1,46	3,25
Total expenditure	71,08	82,89	94,91	1,23,58
Closing balance	21,53	7,67	22,43	15,01
GRAND TOTAL	92,61	90,56	1,17,34	1,38,59

TABLE XI

INCOME AND EXPENDITURE OF MUNICIPALITIES, CENTRAL PROVINCES

	Average for ten years 1891–1900	1901–2.	1903–4.
Income from—	Rs.	Rs.	Rs.
Octroi	7,88,257	8,82,470	9,65,966
Tax on houses and lands .	31,494	32,094	28,132
Other taxes	2,15,399	2,81,361	2,84,411
Rents	28,583	43,495	57,079
Loans	93,369	..	1,11,310
Other sources . . .	3,68,162	3,39,989	4,74,700
Total income	15,25,264	15,79,409	19,21,598
Expenditure on—			
Administration and collection of taxes	3,57,063	4,30,323	4,87,990
Public safety	14,333	23,565	26,570
Water-supply and drainage—			
(*a*) Capital . . .	1,71,286	31,948	72,077
(*b*) Maintenance . .	85,873	1,45,671	1,58,482
Conservancy	2,56,179	2,57,140	2,63,898
Hospitals and dispensaries .	98,796	71,275	73,486
Public works	1,13,964	1,14,626	1,34,041
Education	1,46,725	1,43,319	1,57,215
Other heads	2,80,721	3,09,141	3,89,895
Total expenditure	15,24,940	15,27,008	17,63,654

TABLE XII

INCOME AND EXPENDITURE OF DISTRICT COUNCILS, CENTRAL PROVINCES

	Average for ten years (1891-1900).	1901-2.	1903-4.
Income from—	Rs.	Rs.	Rs.
Land revenue	16,792	14,360	11,820
Contributions from Provincial funds	1,28,516	1,45,730	2,89,995
Interest	127	21	21
Education	8,076	11,045	13,430
Medical	5,422	1,433	7,618
Scientific, &c.	3,486	3,180	4,004
Miscellaneous	12,088	10,406	19,144
Public works	16,342	8,795	9,357
Pounds	1,72,592	1,57,430	1,50,615
Ferries	54,528	46,728	34,568
Debts	89,538	1,03,352	1,72,177
Provincial rates	3,45,448	5,84,977	4,37,681
Total income	8,52,955	10,87,457	11,50,430
Expenditure on—			
Refunds	721	1,232	500
Contributions	20,447	19,423	1,77,921
Loans	150	..	..
General administration	38,558	41,638	42,602
Education	2,68,305	2,71,593	4,11,607
Medical	77,799	87,019	1,09,154
Scientific, &c.	9,239	14,192	20,137
Miscellaneous	93,899	88,914	1,00,125
Public works	2,85,487	2,64,687	1,39,019
Deposits and advances	93,687	91,515	1,72,800
Total expenditure	8,88,292	8,80,213	11,73,865

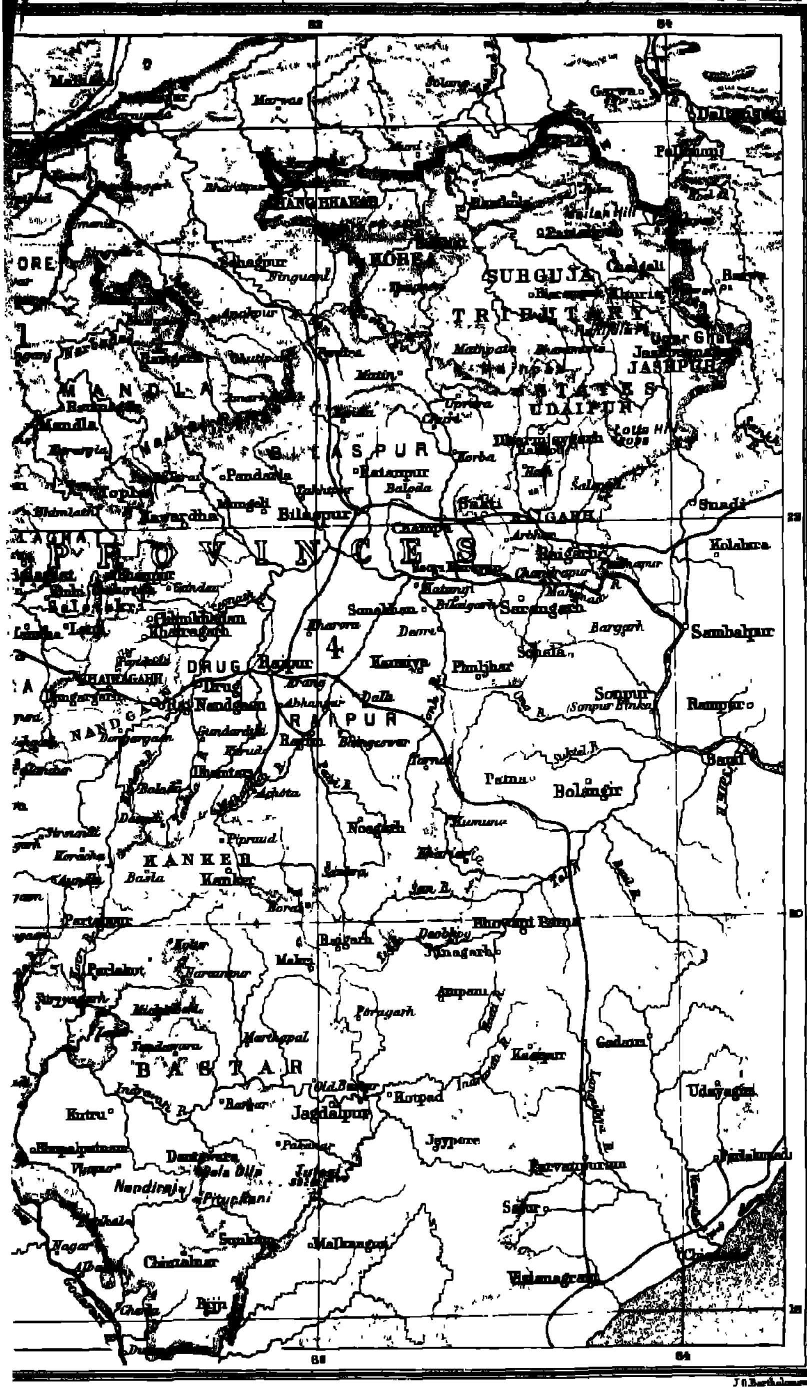
TABLE XIII. STATISTICS OF POLICE, CENTRAL PROVINCES

	1881.		1891.		1902.		1904.	
	No	Pay.	No.	Pay.	No	Pay	No.	Pay.
		Rs.		Rs.		Rs.		Rs.
Supervising Staff.								
District and Assistant District Superintendents	26	1,53,600	29	1,71,600	29	2,41,290	25	2,54,104
Inspectors	59		41		47		48	
Subordinate Staff.		2,60,900		3,40,515		4,19,859		4,23,570
Sub-inspectors, &c.	192		259		163		174	
Head constables	880		1,074		1,229		1,226	
Constables	6,342	4,69,542	7,327	5,74,641	7,322	5,87,392	7,258	5,88,567
Total Regular Police	7,499	8,84,042	8,730	10,86,756	8,790	12,48,541	8,731	12,66,241
Cantonment or Municipal Police.								
Officers	173	Not available	21	Not available	18	Not available	17	Not available
Men	998	"	122	"	111	"	94	"

TABLE XIV

STATISTICS OF JAILS, CENTRAL PROVINCES

	1881.	1891	1901.	1904.
Number of Central jails	3	3	3	3
Number of District jails	15	15	15	15
Number of Subsidiary jails	1	1	1	1
Average daily jail population—				
(*a*) Male prisoners:				
In Central jails	2,551	2,782	2,571	1,911
In other jails	1,205	1,581	1,359	1,038
(*b*) Female prisoners				
In Central jails	191	163	111	109
In other jails	119	149	109	96
Total prisoners	4,066	4,675	4,150	3,154
Rate of mortality per 1,000	30	30	26	12
	Rs	Rs.	Rs	Rs
Expenditure on jail maintenance	1,84,748	2,71,657	3,08,788	2,78,893
Cost per prisoner	46	58	74	88
Profits on jail manufactures	74,214	1,79,685	67,523	1,24,650
Earnings per prisoner—				
(*a*) Sentenced to labour	19	22	55	26
(*b*) Employed on jail manufactures	30	50	127	67



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TABLE XV. Educational Statistics, Central Provinces

Class of institutions	1880-1.			1890-1.			1901-2.			1903-4.		
	Number of institutions.	Scholars.		Number of institutions.	Scholars.		Number of institutions	Scholars.		Number of institutions.	Scholars.	
		Males.	Females.		Males.	Females.		Males.	Females.		Males.	Females.
Public.												
Arts colleges	2	60	...	3	211	1	3	282	...	3	277	...
Professional colleges	...	...	...	...	..	...	2	37	...	2	53	...
Secondary schools—												
Upper (High)	5	252	3	10	618	...	105	7,821	215	27	1,137	37
Lower (Middle)	50	2,224	39	250	22,986	508	151	2,107	114	234	24,687	1,306
Primary schools—												
Upper and Lower	1,360	73,122	3,392	1,557	79,364	7,055	2,290	120,515	10,963	2,215	126,783	12,166
Training schools	4	177	20	5	206	19	5	225	23	6	274	44
Other special schools	16	262	...	20	530	...	7	383	35	7	337	77
Total	1,437	76,097	3,454	1,845	103,915	7,583	2,563	131,370	11 350	2,494	153,548	13,630

TABLE XVI

STATISTICS OF HOSPITALS, LUNATIC ASYLUMS, AND VACCINATION, CENTRAL PROVINCES

	1881.	1891.	1902.	1904.
Hospitals, &c.				
Number of civil hospitals and dispensaries . . .	81	84	113	112
Average daily number of—				
(*a*) In-patients	335	365	472	387
(*b*) Out-patients	4,355	5,877	7,470	6,298
Income from—				
(*a*) Government payments Rs.	58,406	46,649	64,219	1,13,120
(*b*) Local and Municipal payments . . . Rs.	29,784	65,269	94,861	1,21,138
(*c*) Fees, endowments, and other sources . Rs	33,946	33,494	62,353	59,557
Expenditure on—				
(*a*) Establishment . . Rs	60,066	69,218	96,303	1,01,438
(*b*) Medicines, diet, buildings, &c. . . . Rs.	43,946	74,232	1,11,967	1,67,813
Lunatic Asylums				
Number of asylums . .	2	2	2	2
Average daily number of—				
(*a*) Criminal lunatics . .	53	78	77	71
(*b*) Other lunatics	187	183	229	230
Income from—				
(*a*) Government payments Rs	16,458	16,713	19,873	21,845
(*b*) Fees and other sources Rs	1,615	6,157	20,988	29,716
Expenditure on—				
(*a*) Establishment . . Rs	10,039	9,305	9,156	9,898
(*b*) Diet, buildings, &c. . Rs	8,866	13,565	21,948	22,727
Vaccination.				
Population among whom vaccination was carried on . . .	9,516,146	10,292,104	9,876,646	9,876,646
Number of successful operations .	378,118	374,311	381,761	423,942
Ratio per 1,000 of population .	38	39	39	43
Total expenditure on vaccination Rs.	38,547	46,880	42,162	44,565
Cost per successful case . . Rs	0-1-9	0-2-1	0-1-10	0-1-9

Chābuā.—Village in the Dibrugarh subdivision of Lakhimpur District, Eastern Bengal and Assam, situated in 27° 28′ N. and 95° 9′ E. It is a centre of the tea industry, and the market held every Sunday is attended by crowds of coolies from the gardens in the neighbourhood. At Dinjan, 3 miles to the north-east, there is a *sattra* or priestly college, which is held in great reverence by the Mataks, the indigenous inhabitants of those parts. Chābuā is situated near a station of the same name on the Dibru-Sadiyā Railway.

Chach (*Chhachh*).—Alluvial plain in the north of the District and *tahsīl* of Attock, Punjab, lying between 33° 53′ and 33° 59′ N. and 72° 22′ and 72° 44′ E. It is bounded on the north and west by the Indus, and is about 19 miles long from east to west, and 9 miles broad. Percolation from the Indus makes it extremely fertile. Dr. Stein has identified Chach with the Chukhsa or Chuskha country of the Taxila copperplate inscription. In the Muhammadan period it was known as Chach-Hazāra, or Taht Hazāra, 'below Hazāra,' probably because it was subject to the Karlughs who held Hazāra. In this plain lies HAZRO.

[*Indian Antiquary*, vol. xxv, pp. 174–5.]

Chachāna.—Petty State in KĀTHIĀWĀR, Bombay.

Chāchro.—*Tāluka* of Thar and Pārkar District, Sind, Bombay, lying between 24° 44′ and 26° 46′ N. and 69° 48′ and 71° 8′ E., with an area of 2,795 square miles. The population in 1901 was 40,925, compared with 49,502 in 1891. The *tāluka* contains 40 villages, of which Chāchro is the head-quarters. The density, 15 persons per square mile, is slightly below the District average. The land revenue and cesses amounted in 1903-4 to Rs. 49,000. The *tāluka* is a sandy tract of ridge and plain, and depends entirely upon the rainfall for cultivation and pasture. It is subject to frequent droughts. *Bājra* is the principal crop.

Chādarghāt.—Northern suburb of the city of Hyderābād, Hyderābād State, separated from it by the river Mūsi. It derives its name from a dam 12 feet high thrown across the Mūsi, over which the water falls like a sheet (*chādar*). This suburb, which contains most of the houses of the Europeans in the service of the Nizām and also of native officials, has sprung up within the last fifty years. In 1850, with the exception of the Residency and its bazars, there was scarcely a building to be found where houses may be now counted by thousands, many of them fine buildings. It forms the principal section of the Chādarghāt branch of the Hyderābād municipality. It contains the Roman Catholic Cathedral and All Saints' schools; the old French gun foundry erected by M. Raymond, and referred to by Malcolm (1798) as a place in which 'they cast excellent cannon and made serviceable muskets'; Sir W. Rumbold's house (Rumbold's *kothi*), now occupied by the Nizām College; the King *kothi*, where the Nizām's eldest son resides;

the Public Works Office; the Hyderābād College; and the fine buildings known as the Saifābād Palace, now used as the offices of the Financial, Public Works, and the Private Secretaries. Adjoining the compound of this palace on the west is the Mint and Stamp Office, an immense building which was completed in 1904. Many other offices and institutions are situated in Chādarghāt. The public gardens lie to the north-west, and adjoining them on the south is the Hyderābād railway station. Below the Husain Sāgar, or tank, an ice factory, a steam saw-mill, and the Hyderābād Spinning and Weaving Mills have been established.

Chādchat.—Petty State in the PĀLANPUR AGENCY, Bombay; also known as Sāntalpur.

Chāgai District.—District in Baluchistān, lying between 28° 2′ and 29° 54′ N. and 60° 57′ and 66° 25′ E., with an area of 18,892 square miles. It is bounded on the north by Afghānistān; on the east by the Sarawān division of the Kalāt State; on the south by Khārān; and on the west by Persia. From Nushki westward to Dālbandin the country consists of a level plain, having a slight westerly slope, with sand-dunes in the centre and on the north. Beyond Dālbandin lies the western corner of the Baluchistān desert, consisting generally of pebbly plains on the south and sandy desert on the north. Most of the sandhills of this desert are shaped alike, being in the form of a crescent with the horns to the south and the curve to the north. They vary a good deal in height, the tops of the largest being about 60 feet above the plain and sloping down gradually to the horns, where they mingle with the sand. A single line of such hills stretches across the gravel plain from Mashki Chāh to Reg i Wakāb. North of Dālbandin lie the CHĀGAI HILLS, and to the south is the RĀS KOH. The largest river is the PISHĪN LORA, known locally as the Dhor. The Kaisār stream debouches into the plain near Nushki. Many hill-torrents carry off the drainage of the Chāgai Hills, the chief being the Morjen. The District contains the swamp known as the HĀMŪN-I-LORA.

Physical aspects.

The geology displays characteristic desert formations, such as the dried up beds of salt lakes surrounded by successive tiers of shingle terraces; level flats of dried mud called *pat*; plains strewn with pebbles called *dasht*; the gigantic talus or *dāman* which half buries the straggling hill-ranges; and finally the gradual accumulation of wind-borne sand. The hill ranges contain an interesting series of rocks, in which many of the geological strata characteristic of Baluchistān have been recognized. Volcanic rocks of the Deccan trap period are well displayed.

The vegetation consists, for the most part, of a scanty and ill-favoured scrub. Pistachio and tamarisk are the only trees. The saline soil produces varieties of *Salsola* and *Haloxylon*; and in the sand-dunes, among

other plants, two varieties of tamarisk and *Euphorbia* occur. The commonest of the occasional grasses are *Eragrostis cynosuroides*, *Aristida plumosa*, and several species of *Aeluropus*. Asafoetida occurs on the Koh-i-Sultān.

The deserts swarm with venomous snakes and scorpions, while skinks (*reg māhi*) are found in the sandhills. In the remotest parts the wild ass occurs, and the Persian gazelle is fairly common.

The climate is dry and agreeable in the autumn and spring. From May to September great heat is experienced by day, but the nights are cool. The western half of the District is at this time exposed to the effects of the *bād-i-sad-o-bīst-roz*, or 120 days' wind, which carries with it clouds of sand. The winter is cold. Much sickness is caused by the presence of sulphates in the water, which is often fit for consumption only after distillation. Between 2 and 3 inches of rain are received, chiefly in winter. Snow falls on the hills.

History.

Local tradition speaks of an Arab and Mongol occupation of the country in early times. In 1740 Nādir Shāh conferred Nushki as a fief on the chief of Khārān, but it fell into the hands of the Brāhuis shortly afterwards and became a *niābat* of the Kalāt State. Henry Pottinger visited the country in 1810, and Sir Charles Macgregor in 1877. In 1886 the Amīr of Afghānistān sent a force to occupy Chāgai; but ten years later it fell, with Western Sinjrāni, within the British sphere, by the decision of the Afghān-Baloch Boundary Commission, and an Assistant Political Agent was thereon placed in charge of the country from Nushki to Robāt Kila. In 1897 the transit dues levied by the Zagar Mengal chief were abolished, in consideration of an annual payment of Rs. 7,000, of which Rs. 3,600 is devoted to a Mengal levy service. Finally, in June, 1899, the Nushki *niābat* was leased to the British Government by the Kalāt State for an annual quit-rent of Rs. 9,000, and a *tahsīl* was established. In 1901 a sub-*tahsīl* was located at Dālbandin in Chāgai.

Population.

The population enumerated in 1901 was 15,689; allowing 6,000 for Western Sinjrāni, where no Census was taken, the total is 21,689. The table on the next page gives statistics of area, &c, by *tahsīls* in 1901.

Nearly all the inhabitants are Muhammadans of the Sunni sect. The languages spoken are Brāhuī, Baluchī, and a little Pashtū. The majority of the people are Brāhuis, the principal Brāhui tribes being Zagar Mengals (4,600) and Muhammad Hasnis (4,300). The Rakhshānis, another important tribe (3,500), claim to be Baloch. The tribes living in Chāgai and the Western Sinjrāni country include Sinjrānis, Dāmanis, Kūrds, and Rekis. In Nushki most of the population are cultivators; elsewhere they are chiefly flock-owners. The permanent villages number thirty-two, including NUSHKI the head-quarters station.

Agriculture is in its infancy, and the people are wanting in industry. The cultivated area is considerable only in the Nushki *tahsīl*, but it depends chiefly on uncertain floods. In the *dāk* or alluvial plain the clay soil is very fertile when irrigated. Between 1899–1900 and 1903–4, about Rs. 28,500 was advanced for the encouragement of cultivation. Large numbers of camels, sheep, and goats are bred. Bullocks and ponies are scarce. The only sources of permanent irrigation are *kārez* and streams, the former numbering twenty-one and the latter seven. In rainy years water raised by means of dams from the Pishīn Lora is capable of irrigating immense areas in the *dāk* lands in Nushki; and, with this object, a dam in the Bur Nullah was constructed by Government in 1903, at a cost of Rs. 14,000, but it was washed away in 1904. It has since been replaced.

Agriculture.

Tahsīl	Area in square miles	Number of towns.	Number of villages	Population.	Population per square mile
Nushki .	2,202	...	10	10,756	5
Chāgai sub *tahsīl* .	7,483		22	4,933	One person to 1·5 square miles.
Western Sinjrani	9,10[illegible]	.	.	Not enumerated.	
Total	18,892	..	32	15,689	1

A small establishment is maintained for the protection of the pistachio and tamarisk jungles in the hills east of Nushki. Lead, copper and iron ores, sulphur, gypsum, alunogen, and various ornamental stones, such as Oriental alabaster, occur abundantly, but, owing to the inaccessibility of the region, are of no present industrial value.

The women make a few rugs in the *darī* stitch for home use, which are of good texture and pattern and have fast dyes. Trade converges on Nushki from Seistān, Afghānistān, and Khārān; and the District has acquired much of its importance from the opening of the Nushki-Seistān trade-route connecting India with Persia. During the five years ending 1904 the average value of the total trade on this route was 14·1 lakhs, the exports averaging 7·2 lakhs and the imports 6·9 lakhs. The District itself produces a little wool, *ghī*, and asafoetida.

Trade and communications.

A branch of the North-Western Railway on the standard gauge was opened from Spezand to Nushki in 1905. The Nushki-Seistān trade-route has nineteen stages in the 327 miles between Nushki and Robāt Kila, the frontier station. Shelters have been provided for travellers throughout, and post and telegraph offices and shops are located at

important stages. The distance from Robāt Kila to Nasratābād, the capital of Seistān, is 106 miles.

Famine.

The peculiar conditions of the country render it liable to prolonged and constant droughts, at which times the people migrate to other parts. The central and western tracts at present depend entirely on the Helmand valley for their grain supply. In 1902 advances amounting to Rs. 4,200 were given for the purchase of seed and plough bullocks.

Administration.

The District forms part of the Agency Territories, and is administered under the executive orders of the Governor-General. No laws have yet been formally applied. It is divided into three parts: the NUSHKI *tahsīl*, the CHĀGAI sub-*tahsīl*, and the Western Sinjrāni country. The executive authority is vested in a Political Assistant, who is assisted by a European Assistant District Superintendent of police, one *tahsīldār*, and two *naib-tahsīldārs*. The last three officials are magistrates, with jurisdiction in petty civil suits. Most cases are, however, referred to *jirgas* or councils of elders. Such cases numbered twenty-five in 1903–4, including one murder and one robbery. The number of criminal cases in the same year was four and of civil suits six.

In Nushki the Kalāt system of levying land revenue at the rate of one-tenth of the produce together with certain cesses has been continued, with certain modifications. Government owns shares in the water of most of the *kārez*. In Chāgai the rate of revenue levied is one-sixth of the produce. Grazing tax is levied in Chāgai and also on trans-frontier animals grazing in the Nushki *tahsīl*. A tax in kind is collected on asafoetida. In 1903–4 the land revenue of the District amounted to Rs. 17,000, and the revenue from all sources to Rs. 26,000.

A detachment of infantry is stationed at Nushki. The local levies, under the Assistant District Superintendent of police, numbered 186 in 1904. The regular police force comprises only 11 men, and has been amalgamated since 1903 with the Quetta-Pishīn police. Four watchmen are paid from Local funds. The lock-up at Nushki has accommodation for 20 male and 4 female prisoners. A primary school, founded at Nushki in 1904, is attended by 20 boys, and 60 boys receive instruction in the village mosques. A civil dispensary was opened in 1900, with accommodation for 8 in-patients. The average daily attendance of all patients in 1903 was 33. The expenditure, which was borne by Provincial revenues, amounted to Rs. 1,648. Vaccination has not been attempted, and the people still resort to inoculation.

['A Geological Sketch of the Baluchistān Desert,' *Memoirs, Geological Survey of India*, vol. xxxi, part ii; *The Botany of the Afghān*

Delimitation Commission, vol. iii (1887); Sir C. Macgregor, *Wanderings in Baluchistān* (1882).]

Chāgai Sub-Tahsīl.—A sub-*tahsīl* of the Chāgai District, Baluchistān, lying between 28° 19′ and 29° 34′ N. and 63° 15′ and 65° 35′ E., and bounded by Afghānistān on the north and the Rās Koh hills on the south. The area is 7,283 square miles, and the population (1901) 4,933. For revenue purposes it includes part of Western Sinjrāni, which covers 9,407 square miles and has an estimated nomadic population of 6,000. This tract consists almost entirely of pebbly plains and sandhills, and is probably the most uninviting area in the whole Province. The water, especially in summer, is impregnated with sulphates. The people of Chāgai are essentially pastoral, and so far have exhibited little aptitude for agriculture. They own large flocks of sheep and herds of camels. The permanent villages number twenty-two, of which Dālbandin is the head-quarters. In 1903–4 the land revenue amounted to Rs. 6,100, about half of which consisted of the proceeds of the grazing tax.

Chāgai and Rās Koh Hills.—The Chāgai Hills (28° 46′ to 29° 34′ N. and 63° 18′ to 64° 50′ E.) are a range of mountains in the north of the District of the same name in Baluchistān. They have never yet been entirely explored. Their general strike is east and west, the main mass being about 90 miles long by 35 broad, lying to the west of the Hāmūn i Lora at a mean elevation of about 6,000 feet. The range extends farther westward, however, in a series of scattered volcanic ranges, the chief of which is the Koh-i-Sultān. The principal peaks of the main mass are Mārān (7,309 feet), Malik Teznān (7,686 feet), and Malik Nāru (7,915 feet). Here and there are open plains containing slight cultivation and probably capable of development. The geological structure consists chiefly of basic and acid igneous rocks, with occasional outcrops of quartz and diorite. Terraces of travertine or Oriental alabaster occur at the western end of the main mass. The inhabitants are few and are principally nomad Baloch. The Koh-i-Sultān, which is separated from the main range by a sandy plain, is an oval-shaped mountain about 20 miles long by 14 wide. It is an extinct volcano with three distinct cones. Its most remarkable feature is the Neza-i-Sultān, 'the sultān's spear,' a huge natural pillar about 300 feet in diameter and 800 feet high. West of the Koh-i Sultān rises another extinct volcano called Damodim. On the south, the Chāgai Hills are connected with the Rās Koh Hills by the Dālbandin plain. The latter range lies between 28° 25′ and 29° 13′ N. and 63° 57′ and 66° 0′ E. It is an extension, about 140 miles in length, of the Khwāja Amrān offshoot of the Toba-Kākar range, and takes its name from its highest peak, nearly 10,000 feet above sea-level. It gradually sinks westward beneath the superficial deposits of the Western Sinjrāni desert. The

watershed roughly divides Khārān from Chāgai. Though the general direction is north-east to south-west, the component ridges have many irregularities in strike. Geologically also the formation is complex, consisting now of Tertiary limestone, now of flysch, and now of igneous outcrops, which are best represented by the Rās Koḥ peak. Other peaks are Shaikh Husain (6,875 feet), where a shrine of some local importance exists, and Kambrān (8,518 feet). Vegetation is extremely scanty and the ridges rise bare and barren. Good bags of Sind ibex are sometimes made on them.

Chaibāsa.—Head-quarters of Singhbhūm District, Bengal, situated in 22° 33′ N. and 85° 49′ E., on rising ground overlooking the right bank of the Raro river. Population (1901), 8,653. Chaibāsa was constituted a municipality in 1875. The income during the decade ending 1901–2 averaged Rs. 8,000, and the expenditure Rs. 7,000. In 1903–4 the income was Rs. 12,000, mainly derived from a tax on houses and lands, a conservancy rate, and a tax on vehicles; and the expenditure was Rs. 10,000. The town lies within the Kolhān Government estate. It contains the usual public offices. The District jail has accommodation for 230 prisoners, who are employed on oil-pressing, cloth, *darī* and carpet-weaving, and *sabai* string-making.

Chail.—Sanitarium and summer residence of the Mahārājā of Patiāla, in the Pinjaur *tahsīl* and *nizāmat*, Patiāla State, Punjab, situated in 30° 58′ N. and 77° 15′ E., 19 miles (26 by road) south of Simla, at an elevation of 7,394 feet above sea-level. It was originally a possession of the Keonthal State, from which it was wrested by the Gurkhas in 1814. After the Gurkha War the British Government transferred it, with other portions of the Keonthal and Baghāt States, to Patiāla in 1815. The station contains the handsome villa of the Mahārājā, the guesthouse (generally known as the Dharmsāla), and the Political Agent's house and offices. Water-works have been constructed. The population at the Census of March, 1901, was only 20, but during the summer months it rises to about 1,000.

Chainpur.—Village in the Bhabuā subdivision of Shāhābād District, Bengal, situated in 25° 2′ N. and 83° 31′ E., 7 miles west of Bhabuā town. Population (1901), 2,870. The place was formerly the residence of the Chainpur Rājās, who were expelled by the Pathāns about 250 years ago. The old fort of Chainpur is surrounded by a ditch, and defended by a stone rampart flanked with bastions; it has a large gate in the northern and a smaller one in the southern curtain. The space within is covered with buildings, partly of brick and partly of stone, with several large wells. A mosque built as a tomb over Fateh Khān, who married a daughter of the emperor Sher Shāh, is still in good condition.

Chaj (Jech) Doāb.—A *doāb* or 'tract lying between two rivers'

(the Chenāb and Jhelum) in the Punjab, lying between 31° 10′ and 33° 0′ N. and 72° 7′ and 74° 3′ E., and comprising Gujrāt and parts of Shāhpur and Jhang Districts. The name was formed by the Mughal emperor Akbar, by combining the first syllables of the names of the two rivers.

Chākan.—Market village in the Khed *tāluka* of Poona District, Bombay, situated in 18° 45′ N. and 73° 32′ E., 6 miles south of Khed and 18 miles north of Poona. Population (1901), 4,197. Chākan fort is nearly square, with bastioned fronts and corner towers. A portion of the outworks is said to be the remains of a fortification made in 1295 by an Abyssinian chief. Chākan first came into notice in 1443, when Malik ut-Tujār, the leading Bahmani noble, who was ordered by Alā-ud-din II (1435-58) to reduce the sea-coast or Konkan forts, fixed on Chākan as his head-quarters. From this time Chākan and Junnar continued military posts. In 1486 Malik Ahmad, the founder of the Ahmadnagar dynasty, seized the fort. In 1595 Bahādur, the tenth Ahmadnagar king, granted the fort to Māloji Bhonsla, Sivajī's grandfather, and it thus came into Sivajī's possession. In 1662 it was captured by Shaista Khān, the Mughal general, but was restored to Sivajī by Aurangzeb in 1667. In 1818 the fort was taken without much difficulty from the Marāthās by Lieutenant-Colonel Deacon. The village contains three schools with 206 boys and 22 girls, besides a school maintained by a branch of the Church Missionary Society.

Chākdaha.—Town in the Rānāghāt subdivision of Nadiā District, Bengal, situated in 23° 6′ N. and 88° 33′ E., on the left bank of the Hooghly river. Population (1901), 5,482. Chākdaha was constituted a municipality in 1886. The income and expenditure during the decade ending 1901-2 averaged Rs. 3,800. The income in 1903-4 was Rs. 3,900, mainly derived from a tax on persons (or property tax); and the expenditure was Rs. 4,800. Chākdaha is a centre of the jute trade, but a change in the course of the river has greatly reduced its importance. It was near this place that Kartā Bābā, the founder of the Kartābhajā sect, was born.

Chakdarra.—A military post to the north-east of the Malakand Pass, on the south bank of the Swāt river, in the Dīr, Swāt, and Chitrāl Agency, North-West Frontier Province, situated in 34° 44′ N. and 72° 8′ E. Like the Malakand, it was fortified by Akbar's general Zain Khān in 1587, in his attempt to conquer Swāt. In 1895 the Chitrāl relief force crossed the Swāt river at Chakdarra, which was garrisoned and retained as an outpost on the conclusion of the campaign. In July, 1897, Chakdarra was besieged by 8,000 tribesmen who had attacked the Malakand under the Mullā Mastān or 'Mad Mullā,' but its hard-pressed garrison was relieved on August 2.

Chakiā.—North-eastern *tahsil* of Mirzāpur District, United Pro-

vinces, belonging to the BENARES ESTATE, conterminous with *pargana* Kerā Mangraur, and lying between 24° 56′ and 25° 15′ N. and 83° 13′ and 83° 25′ E., with an area of 474 square miles. Population fell from 70,914 in 1891 to 66,601 in 1901. There are 415 villages, but no town. The density of population, 141 persons per square mile, is below the District average. Chakiā stretches from the Gangetic valley to the centre of the Vindhyan plateau, and the greater part lies on the latter. The northern portion is a fertile level plain producing rice; but the plateau is a waste expanse of hill and jungle, most of which forms a game preserve. The southern portion is usually known as the Naugarh *taluka*. The Karamnāsā and its tributary the Chandraprabhā drain the *tahsīl*, flowing from south to north. Agricultural records are maintained for only 160 square miles, of which 109 were under cultivation in 1903–4, and 27 square miles were irrigated, almost entirely from wells. The whole *tahsīl* is held free of revenue.

Chakki-no-Aro (or 'Grindstone Bank').—Place of pilgrimage on the Karād river in the Kālol *tāluka* of the Pānch Mahāls District, Bombay, situated in 22° 35′ N. and 73° 35′ E., between the villages of Medapur and Marva. In the middle of the river where the channel is deepest stands a large rock, over which, in ordinary course, the stream would flow in a cascade into the deep pool below. But above the rock a rectangular reservoir has been built, about 15 feet square, and 4 to 5 feet deep, partly of brick and partly of rock, the large rock forming its lower side. Into this the water of the river runs, and passes out of it, not over the large rock, but by a channel, 6 to 8 feet long, cut from the deepest part of the reservoir right through the centre of the rock. Out of this the water spouts and falls into a deep pool several feet below. At eclipses of the sun, and at the Mahoda Parv or Somvati Amās, when the last day of the month falls on a Monday, and also on other occasions, Brāhmans, Rājputs, and Vānīs come to bathe and wash away their sins in the pool. The legend is that a certain Rājā Sulochan of Benares was troubled with a growth of hair on the palms of his hands, sent him as a punishment for his sins. As none of the Benares seers could cure him, he was advised to go to the famous Vishvāmitra, who lived where Pāvāgarh now stands. Vishvāmitra told him that if he sacrificed at a spot in the river where a sacred grindstone lay, his sins should be destroyed as grain is ground to powder in a grindstone. The Rājā went to the spot, built a place of sacrifice, and cut a conduit in the rock through which to feed with butter the fire of his sacrifice. The river became known as the *Kar* ('hand'), since corrupted into Karād Gangā, and the place of sacrifice as the Chakki-no-Aro or 'grindstone bank.' Half the grindstone is still there, the other half was stolen by a Gosain, who, being pursued, threw it away where it still lies between the villages of Viasra and Alāli in Kālol.

Chakla Roshnābād.—A permanently settled estate, with an area of 570 square miles, belonging to the Rājā of Hill Tippera, situated in the Eastern Bengal Districts of Tippera and Noākhāli, and in the Assam District of Sylhet. In 1901–2 the demand for revenue was 1·53 lakhs and for cesses Rs. 56,000; the annual income from rents and cesses is 8 lakhs.

The estate originally formed part of the State of Hill Tippera, which came into the possession of the Muhammadans in 1733. The Muhammadans never troubled themselves about the hills, but they assessed the plains to revenue, and the East India Company followed their example. The revenue assessed at the Permanent Settlement in 1793 was *sicca* Rs. 1,39,676. At the request of the Rājā, the estate was brought under survey and settlement in 1892–9, and the final report supplies complete information regarding it. Excluding the portion in Sylhet, which was not surveyed, the area measured was 558 square miles, of which 401 were cultivated, 39 cultivable waste, and the rest was made up of uncultivable lands and water; 517 square miles were rent-paying, and of this area 252 square miles were held direct by ryots, 208 square miles by tenure-holders with variable rents, and the balance by tenure holders at fixed rents. The tendency is towards subdivision of the tenures rather than in the direction of further sub-infeudation. The average area of a ryot's holding is $3\frac{1}{4}$ acres, from which he derives a net income of Rs. 133 per annum. Rice covered four-fifths of the cultivated area, the other important crops being jute (8,000 acres), chillies (6,700 acres), mustard (4,932 acres), and sugar-cane (1,687 acres). The population of the estate in 1891 was 467,000, or 837 persons per square mile. The settlement increased the rental of the estate from 5·84 lakhs to 6·76 lakhs, or by 16 per cent., the cost of the operations being 5·28 lakhs, or Rs. 1–8 an acre.

Chaklāsi.—Town in the Nadiād *tāluka* of Kaira District, Bombay, situated in 22° 39′ N and 72° 57′ E. Population (1901), 7,340. In 1898 an outbreak occurred here among persons of the Dharāla caste, who had been led to believe that the British Government had ceased to exist. The police were at first repulsed, but eventually arrested the ringleaders. The town contains a boys' school with 303 pupils.

Chakmā. One of the three circles into which the Chittagong Hill Tracts, Eastern Bengal and Assam, are divided for administrative purposes. It occupies the centre and north of the District, lying between 22° 7′ and 23° 13′ N. and 91° 43′ and 92° 36′ E., with an area of 2,421 square miles. It is a land of hills and valleys, bounded on the south by the Bomong circle, on the north-west by the Mong circle, on the north and east by forest Reserves, and on the west by the District boundary. Population (1901), 48,789, having increased by 7·1 per cent. since 1891. The people mostly belong to a tribe known as Chakmās

(see CHITTAGONG HILL TRACTS), and the circle is administered by the Chakmā Rājā. There are 94 villages, one of which, RĀNGĀMĀTI, is the residence of the chief and the head-quarters of the District. The present chief is Rājā Bhuban Mohan Rai.

Chakradharpur.—Village in Singhbhūm District, Bengal, situated in 22° 41′ N. and 85° 37′ E., on the Bengal-Nāgpur Railway, 194 miles from Calcutta. Population (1901), 4,854. It is an important railway centre.

Chakrātā Tahsīl (*Chakrautā*).—Northern *tahsīl* of Dehra Dūn District, United Provinces, better known under its earlier name of Jaunsār-Bāwar. It lies between 30° 31′ and 31° 2′ N. and 77° 42′ and 78° 5′ E., and forms a roughly elliptical mass of mountains, stretching due north from the outer range of the Himālayas. The southern half lies between the Tons (Northern) and Jumna rivers. The whole tract is so hilly that in its entire area of 478 square miles scarcely a single level space of 100 yards occurs anywhere, and only 31 square miles are cultivated. The population rose from 50,697 in 1891 to 51,101 in 1901. The *tahsīl* contains two towns: the cantonment of CHAKRĀTĀ (population, 1,250), and the small town of KĀLSĪ (760), which is administered under Act XX of 1856. There are thirty-nine *khatts* or revenue divisions, and several hundred inhabited sites. In 1903–4 the demand for land revenue was Rs. 23,400, and for cesses Rs. 3,800. The low density of population, only 107 persons per square mile, is usual in the Himālayan tract. The rainfall at Chakrātā averages 80 inches, being slightly less than in the rest of the District. The inhabitants resemble those of the neighbouring Himālayan tracts, and differ from the people in the plains. Polyandry is common. The Jaunsār-Bāwar Forest division has an area of 142 square miles, and is managed jointly with 153 square miles of forests leased from the neighbouring Native States. The forests contain very valuable timber trees, especially *deodār* and various kinds of pines. Railway sleepers and other timber are transported to the Jumna by an ingenious system of slides, and then floated down to Delhi. The provisions of the Excise Act of 1896 are relaxed, except in the towns of Chakrātā and Kālsī, and the inhabitants are allowed to make spirits and fermented liquor for their own use. There is also a small cultivation of poppy which is not controlled, but this privilege will expire with the present settlement.

Chakrātā Town (*Chakrautā*).—Cantonment and *tahsīl* head-quarters in Dehra Dūn District, United Provinces, situated in 30° 42′ N. and 77° 52′ E., 25 miles from Kālsī and 40 miles west of Mussoorie along the hills, at an elevation of 6,885 feet above the sea. The cold-season population has varied since 1872 between 1,200 and 1,500, and was 1,250 in 1901. The present garrison consists of a regiment of

British infantry; and there is a standing camp at Kailāna, a short distance east of Chakrātā, where details from various regiments are stationed. In September, 1900, the troops numbered 1,716 with women and children, and the total population was 5,417. The cantonment was founded in 1866, and first occupied in 1869. A fine cart-road, 77 miles long, connects it with Sahāranpur, a branch from which passes along the valley of the Dūn to Dehra. The income and expenditure of the cantonment fund are about Rs. 16,000 annually. A brewery is established here, the number of hands employed in 1903 being 30, and the out-turn 88,000 gallons.

Chāksu.—*Tahsīl* in the Jaipur State, Rājputāna. *See* CHĀTSU.

Chakwāl Tahsīl.—North-western *tahsīl* of Jhelum District, Punjab, lying between 32° 45′ and 33° 13′ N. and 72° 32′ and 73° 13′ E., with an area of 1,004 square miles. The population in 1901 was 160,316, compared with 164,912 in 1891. It contains the towns of CHAKWĀL (population, 6,520), the head-quarters, and BHAUN (5,340); and 248 villages. The land revenue and cesses amounted in 1903–4 to 3·3 lakhs. The southern portion runs up into the Salt Range, and includes the Chail peak, 3,701 feet above the sea, the highest point in the District. Between this and the Sohān river, which follows more or less the northern boundary, the country consists of what was once a fairly level plain, sloping down from 2,000 feet at the foot of the hills to 1,400 feet in the neighbourhood of the Sohān; but the surface is now much cut up by ravines and is very difficult to travel over.

Chakwāl Town.—Head-quarters of the *tahsīl* of the same name in Jhelum District, Punjab, situated in 32° 56′ N. and 72° 52′ E., in the Lundi Pattī plain, 55 miles due west of Jhelum town. Population (1901), 6,520. A light railway from Mandra to Chakwāl has been suggested, but has not yet been surveyed. Shoes and parti-coloured cotton cloth are made. The town is administered as a 'notified area,' and contains an Anglo-vernacular middle school, maintained by the District board, and a Government dispensary.

Chalan Bīl.—Marshy lake situated on the borders of Rājshāhi and Pābna Districts in Eastern Bengal and Assam, between 24° 10′ and 24° 30′ N. and 89° 10′ and 89° 20′ E. The length from north-west to south-east is 21 miles; the greatest breadth 10 miles; and the total area about 150 square miles in the rains, shrinking to 20 square miles during the dry season, when the average depth is 3 feet. A tortuous navigable channel runs through it, with a depth of from 6 to 12 feet all the year round. The principal feeder of the lake is the Atrai, whose waters eventually find their way into the Brahmaputra through an outlet at the south-east corner. Land to the south and east which once formed part of the marsh is now dry; but its waters are encroaching towards the north-west, and to prevent this, commissioners have been appointed

to carry out a scheme for the removal of obstructions to the drainage. The lake abounds in fish and waterfowl, and the value of the annual export of fish is estimated at Rs. 60,000.

Chālisgaon Tāluka.—*Tāluka* of East Khāndesh District, Bombay, lying between 20° 16′ and 20° 41′ N. and 74° 46′ and 75° 10′ E., with an area of 501 square miles. It contains one town, CHĀLISGAON (population, 10,243), the head-quarters; and 132 villages. The population in 1901 was 90,837, compared with 74,880 in 1891. A proportion of the increase was due to immigration from the Nizām's territory during the last famine. The density, 181 persons per square mile, is above the District average. The demand for land revenue in 1903–4 was 2 lakhs, and for cesses Rs. 15,000. Chālisgaon is situated in the extreme south of the District at the foot of the Sātmāla range, which, running east and west like a wall, separates Khāndesh from the Deccan uplands. It is watered by the Girnā river, which flows from west to east through the northern villages, and by its tributaries the Manyād and Tittur, which in their turn are fed by several minor streams. Besides these and the Jāmda canal, about 3,700 wells supply irrigation. The soil is mixed, much of it towards the south, south-west, and north being hard and stony. The black soil of the Girnā valley, though better than in the surrounding parts, is generally poor, as it rests on a subsoil of either gravel or rock.

Chālisgaon Town.—Head-quarters of the *tāluka* of the same name in East Khāndesh District, Bombay, situated in 20° 27′ N. and 75° 1′ E., on the Great Indian Peninsula Railway, 35 miles south of Dhūlia, with which it is connected by a branch line opened in 1900. Population (1901), 10,243. The town is of little importance, except as being the head-quarters of a *tāluka*, although its trade has much increased since the opening of the railway. It contains a dispensary and five schools with 400 pupils, of which one, with 31 pupils, is a girls' school. A branch of the American Alliance Mission works here.

Chalk Hills.—The name given to a barren tract of hilly ground in the Salem *tāluk* of Salem District, Madras, lying between 11° 42′ and 11° 47′ N. and 78° 7′ and 78° 12′ E., north and north-west of Salem city. Over the greater part of this area the surface is whitened by numerous veins of magnesite, the white colour of which has given the locality its name. The magnesite deposits cover about 12 square miles, stretching from a little west of the railway north-eastward to the foot of the Shevaroys. They are said to be the largest of the small number of such deposits which are known, and are now being worked.

Challakere.—North-eastern *tāluk* of Chitaldroog District, Mysore, lying between 14° 4′ and 14° 37′ N. and 76° 27′ and 77° 2′ E., with an area of 788 square miles. The population in 1901 was 74,035,

compared with 60,711 in 1891. There are two towns, NĀYAKANHATTI (population, 2,858) and Challakere (2,000), the head-quarters; and 192 villages. The land revenue demand in 1903–4 was Rs. 1,10,000. The Vedāvati flows through the east from south to north, receiving two streams from the west. The surface of the *tāluk* is comparatively flat, with a few rocky ridges or bare hills. Date groves occur in some parts, and groups of *babūl* in tank-beds and along the river. Except for these, the country generally presents a bleak and barren appearance. An area of 104 square miles is occupied by Amrit Mahāl grazing-grounds. The soil is mostly red and sandy, but in the south-west corner there is some good black soil. The surface is often covered with loose stones, solid rock constantly crops up, and enormous boulders are found even in the cultivated fields. In many villages the soil is impregnated with saline matter, which causes a white efflorescence on the surface. This soil is cultivated, but produces very poor crops. The tanks are numerous, but few are of the first class. Wells are more relied upon, many of which tap *talpargis* or spring-heads. Great attention is paid to the cultivation of rice and other irrigated cereals, as well as to the coco-nut and areca-nut gardens, but 'dry-crop' cultivation is carried on in a slovenly and careless manner. *Sajje* and *sāve* are the principal 'dry crops,' but castor-oil, horse-gram, *rāgi*, and *jowār* are also grown. The two latter, however, as well as wheat, *navane*, and tobacco, are almost always raised on irrigated lands. Cotton is grown in small quantities, chiefly on the black soil.

Chaman Subdivision.—The most northerly subdivision and *tahsīl* of the Quetta-Pishīn District, Baluchistān, lying between 30° 28′ and 31° 18′ N. and 66° 16′ and 67° 19′ E. It is bordered on the north by Afghānistān. The greater part consists of the mountainous region called Toba, which has a mean elevation of about 8,000 feet, though its western skirts descend to about half that height. There is little cultivation, pasture being the principal means of livelihood. The area is 1,236 square miles, and the population in 1901 was 16,437, showing an increase of 5,375 since 1891. The only place of importance is the head-quarters, CHAMAN TOWN (population, 2,233). The indigenous Achakzai Afghāns are nomadic, and permanent villages are practically unknown. They pay as revenue a lump assessment of Rs. 8,000 per annum.

Chaman Town.—Head-quarters of the Chaman subdivision of the Quetta-Pishin District, Baluchistān, and the frontier terminus of the North-Western Railway, situated in 30° 56′ N. and 66° 26′ E., at an elevation of 4,311 feet above sea-level. It is the head-quarters of a Native Assistant. Population (1901), 2,233. The garrison consists of a regiment of native infantry and some cavalry occupying the fort. A supply of water is brought in pipes from the Bogra stream, the system

having cost 2¼ lakhs. The conservancy of the civil station is provided for from the Pishīn bazar fund.

Chamārdi.—Petty State in KĀTHIĀWĀR, Bombay.

Chāmarlakota.—Town in Godāvari District, Madras. *See* SĀMALKOT.

Chamba State.—Native State in the Punjab, under the political control of the Commissioner, Lahore Division, lying between 32° 10′ and 33° 13′ N. and 75° 45′ and 77° 3′ E., with an estimated area of 3,216 square miles, and shut in on almost every side by lofty hill ranges. It is bounded on the west and north by the territories of Kashmīr, and on the east and south by the British Districts of Kāngra and Gurdāspur.

Physical aspects.

Two ranges of snowy peaks and glaciers run through the State: one through the centre, dividing the valleys of the Rāvi and the Chenāb; the other along the borders of Ladākh and British Lāhul. To the west and south stretch fertile valleys. The country is wholly mountainous, and the principal rivers are the Chandra and Rāvi, which flow generally from south-east to north-west.

Geologically, the State possesses all the characteristics of the North-West Himālayas, though local details vary. Along the southern margin of the mountain region are found the lower Siwālik or Nāhan sandstones and the upper Siwālik conglomerate. Along the southern margin the Nāhan series predominate. At the higher elevations the flora is that common to the North-West Himālayas generally, but some Kashmīr types find their eastern limit in the western valleys. In the Rāvi basin and Pāngī, *Cedrus Deodara* and other conifers abound, and there is also a good deal of mixed forest. Chamba Lāhul has an almost purely Tibetan flora. Chamba is a favourite resort of sportsmen, and the mountain ranges abound with game, comprising the black and brown bear, leopards, Kashmīr stag, ibex, *gural*, barking-deer, *thār*, serow, and snow leopard. The musk deer is found in many parts. Among game-birds, the *chikor*, snow partridge, and five species of pheasant are common. Fish are found in the larger streams. With altitudes of 2,000 to 21,000 feet every variety of climate may be experienced. That of the lower tracts resembles the plains, except that the heat in summer is less intense. In the central parts the heat in summer is great, but the winter is mild and the snowfall light. On the higher ranges, at altitudes of from 5,000 to 20,000 feet, the summer is mild, and the winter severe with heavy snowfall. The autumn months are generally unhealthy, except on the upper ranges, the lower valleys being malarious. In the lower valleys the rains are heavy and prolonged. In the Rāvi valley the rainy season is well marked and the rainfall considerable. In the Chenāb valley it is scanty, heavy rain is unusual, and the annual average does not exceed 10 inches. Rain also

falls in the winter months, and is important for both the spring and autumn crops, as on the higher ranges it is received as snow, which melts in summer and supplies water for irrigation.

The Chamba State possesses a remarkable series of inscriptions, mostly on copperplates, from which its chronicles have been completed and authenticated. Founded probably in the sixth century by Marut, a Sūrajbansi Rājput, who built Brāhmapura, the modern Brāhmaur, Chamba was extended by Meru Varma (680), and the town of Chamba built by Sāhil Varma about 920. The State maintained its independence, acknowledging at times a nominal submission to Kashmīr, until the Mughal conquest of India. Under the Mughals it became tributary to the empire, but its internal administration was not interfered with, and it escaped almost unscathed from Sikh aggression. The State first came under British influence in 1846. The part west of the Rāvi was at first handed over to Kashmīr, but subsequently the boundaries of the State were fixed as they now stand, and it was declared independent of Kashmīr. In 1848 a *sanad* was given to the Rājā, assigning the territory to him and his heirs male, who are entitled to inherit according to Hindu law, and on failure of direct issue to the heirs of the brothers according to seniority. A *sanad* of 1862 confers the right of adoption. Rājā Gopāl Singh abdicated in 1873, and was succeeded by Rājā Shām Singh, who abdicated in 1904 in favour of the present Rājā, Bhuri Singh, K.C.S.I., C.I.E., an enlightened and capable ruler. The Rājā is entitled to a salute of 11 guns. The principal antiquities are described in the articles on CHAMBA TOWN, BRAHMAUR, and CHITRADI.

History.

Exclusive of Chamba town, the capital, the State contains 1,617 villages. The population at each of the last three enumerations was: (1881) 115,773, (1891) 124,032, and (1901) 127,834. The State is divided into five *wazārats*, each subdivided into several *ilākas*, with head quarters at *kothīs* in which the revenue in kind is stored. Hindus number 119,327, or 93 per cent. of the population; Muhammadans, 8,332; and Sikhs, 80. Only 22 Buddhists were returned, but there is reason to believe that some Buddhists were enumerated as Hindus. The density of population is only 41 persons per square mile. The principal dialect is Chambiālī, which is understood throughout the State, the script being called Tākra. Punjābi, Urdu, and Hindī are also spoken. The population includes a few Rājputs, who form a kind of aristocracy. The Brāhmans, who are of all grades from Gaddis upwards, number 16,126. The Gaddīs and others who live at a distance from the capital are engaged in agricultural and pastoral pursuits, but the purists of Chamba and its environs disdain to till the soil themselves. The majority of the population are Rāthis, a versatile tribe, which takes with equal readiness

Population.

to agriculture, trade, or the service of the State. They seem to be identical with the Kanets of Nāhan and the Thakkars of Kashmīr. Among the lower castes, Hālīs (18,000), a caste which hardly exists outside Chamba, Chamārs (5,000), Kolīs (4,000), and Dūmnas (2,000) are the most numerous. The great majority of the people depend for their support on the produce of their fields, their flocks, and their rude home industries. The Church of Scotland Mission has a branch, established in 1863, at Chamba town, which also contains a branch of the Church of Scotland Ladies' Association Mission, established in 1877. In 1901 native Christians numbered 60.

Agriculture.

The Rājā is sole proprietor of all the land. Those who lease land from the State for cultivation are called *mālguzārs* (rent-payers). A *mālguzār* may, however, sell or mortgage his right of occupancy, and is not ejected so long as he pays his revenue, unless his land is required for a public purpose. The total area under cultivation is 170 square miles, and the area of the forests leased to the British Government 160 square miles. The staple food-crops grown are rice, maize, pulses, millets, and potatoes. The poppy is grown only in the Chaurāh *wazārat.* Tea is cultivated in the territory which adjoins Shāhpur in Kāngra District. The State is absolutely secure against famine. The cultivation of hops promised at one time to be important, but has been abandoned. The cattle are generally small and of inferior breed. Buffaloes are mostly kept by Gūjars, but villagers also keep them for domestic use. The ponies of the Lāhul hills are well-known. Sheep are universally kept, and blankets and clothing are made of the wool. Goats are still more numerous. To irrigate the fields, artificial channels (*kūhls*) are cut from the hill streams. Their construction and management rest entirely with the people.

By far the greater and more valuable part of the State forests were leased to Government in 1864 for a term of ninety-nine years, in return for Rs. 21,000 a year. In 1884 the contract was revised, and two-thirds of the net profits was paid to the State during the next twenty years. The forests are alpine, few being below 5,000 feet elevation, and large areas extend to 12,000 feet. *Deodār* and blue-pine logs, sleepers, and scantlings are largely exported from the forests in Pāngī and on the Rāvi down the latter river and the Chenāb to Lahore and Wazīrābād. From 1864 to the end of 1903–4 the leased forests yielded a revenue of 73·4 lakhs, and cost Government 69·2 lakhs, including all payments made to the State. Under the present contract, which took effect from 1904, the State receives all the net profits. The leased forests are managed by the Imperial Forest department, the officer in immediate charge being the Deputy-Conservator of the Chamba Forest division.

The mountain ranges are rich in minerals. Iron is found in the Brāhmaur and Chaurāh *wazārats*, but the mines are not worked owing

to the cheapness of imported iron. The copper and mica mines have also been closed. Slate quarries are numerous, especially near Dalhousie, and are profitable.

Trade and communications.

Manufactures are almost unknown. The people make only such things as are required for their daily wants. Brass- and woodwork, dyeing and weaving of the roughest kind, are the sole handicrafts. The trade of the State is confined to the export of honey, wool, *ghī*, the bark of walnut-trees, walnuts, lac, drugs, pine-nuts, cumin seed, timber and other forest produce. Piece-goods, utensils, salt, sugar, *charas*, oil, and molasses are the chief imports.

The principal road to Chamba town is 70 miles long, from Pathānkot, the terminus of the Amritsar-Pathānkot branch of the North-Western Railway. It passes through Dunera and Dalhousie, tongas running only up to Dunera. From Dunera to Dalhousie it is a camel road under the military authorities. Chamba is only 18 miles from Dalhousie, and the road is well kept up by the State. Another road, shorter but more precipitous, runs from Pathānkot through Nūrpur in Kāngra District to Chamba. Both these roads are closed in winter, when a longer road via Bāthri and Chīl is used. Near Chamba the Rāvi is crossed by an iron suspension bridge which cost the State a lakh. Brāhmaur, Pāngī, and Chaurāh are reached by different roads, all kept up by the State.

The relations between the British and the State post offices are regulated by the convention of 1886, which provides for a mutual exchange of all postal articles. Indian stamps, surcharged 'Chamba State,' are supplied to the State by the Government of India at cost price, and are sold to the public at their face value by the State post offices. For official correspondence, Indian stamps, surcharged 'Chamba State Service,' are supplied to the State at cost price. For correspondence, &c., addressed to places outside India, the ordinary Indian stamps are used. There are eight post offices in the State, including the central office at the capital. The postal department is under the control of a postmaster general, and is subject to inspection by the Superintendent of Post Offices, Ambāla division.

Administration.

The Rājā is assisted in the work of administration by the *Wazīr*, who is the chief executive officer, and head of the judicial department, and by the *Bakhshī*, or chief revenue officer. The *Wazīr* ranks next to the Rājā, and during the absence of the latter is entrusted with supreme control. Each of the five *wazārats*, Brāhmaur, Chamba, Bhattiyāt, Chaurāh, and Pāngī, is divided into *parganas*. The revenue is collected by a resident agent, called *likhne-hāra* (village accountant), in each *pargana*, and under him are *ugrākas* who realize the revenue from the villagers. The *batwāl*, or village constable, and the *jhutiyār*, a subordinate under the *batwāl*, with the

chār at their head, perform other duties, such as arrangements for supplies, &c.

The permanent State courts are all situated in Chamba town; but a special officer is appointed for each *wazārat*, with powers resembling those of a *tahsīldār*, except that he can hear civil suits up to Rs. 1,000, and he is required to tour during the summer within the limits of his charge. Appeals from the decisions of these officers are heard by the *sadr* courts, beyond which an appeal lies to the *Wazīr* and a further appeal to the Rājā. The Rājā alone has the power to inflict sentences of whipping. Sentences of death passed by him require the confirmation of the Commissioner of Lahore. The Indian Penal Code and the Code of Criminal Procedure are in force in the State, with certain modifications.

The estimated gross revenue is Rs. 4,58,000, of which Rs. 2,18,000 is derived from land revenue and Rs. 2,39,000 from the leased forests and miscellaneous revenue. The expenditure includes Rs. 3,800 paid as tribute to the British Government.

The head-quarters of the police are at the capital. The force numbers 100 constables, under a *kotwāl*. The jail at Chamba town has accommodation for 100 prisoners, and each *kothi* serves as a lock-up. The army consists of 33 cavalry, 270 infantry, and 16 artillerymen, with 4 serviceable guns.

Chamba town has two English schools: a high school, with 123 pupils, maintained by the State; and an Anglo-vernacular middle school, maintained by the Scottish Mission. The State also maintains a girls' school, and the mission has some girls' and low-caste schools. There were altogether 8 schools for boys and girls, with 206 pupils, in 1905.

The only hospital is the Shām Singh Hospital at Chamba town, with accommodation for 21 male and 10 female in-patients. The latter are treated by a lady Hospital Assistant with a trained nurse. The State also maintains a branch dispensary at Tissa. The whole department is under an Assistant Surgeon. At these institutions 14,217 cases, including 437 in-patients, were treated, and 697 operations performed in 1903. The whole cost, which amounted to Rs. 9,846, is borne by the State. A leper asylum is maintained in connexion with the hospital. Vaccination has become very popular, and the State maintains a separate department under the Assistant Surgeon. In 1903 the number of persons vaccinated was 3,325.

[*State Gazetteer* (in press).]

Chamba Town.—Capital of the Chamba State, Punjab, picturesquely situated in 32° 29′ N. and 76° 11′ E., on the right bank of the Rāvi. Population (1901), 6,000. Shut in by hills on the east and south, it lies on a plateau between the deep gorges of the Rāvi on the west and the Saho on the north. It is built on two terraces. On the

lower is the *chaugān* or public promenade and recreation ground, with the Residency (now the State guesthouse) at the southern end, and surrounded by public offices, &c. On the upper terrace stands the palace, with the residences of the State officials and the better class of the townspeople beyond. The town contains a number of interesting temples, of which that of Lakshmī Nārāyan, dating possibly from the tenth century, is the most famous. It also possesses an Anglo-vernacular high school and the Shām Singh Hospital. The Church of Scotland Mission has a branch here, established in 1863.

Chambal.— A river of Central India and Rājputāna, and one of the chief tributaries of the Jumna. It rises in the Indore State, about 9 miles south-west of Mhow cantonment, in the Janapao hill, 2,019 feet above the sea, in 22′ 27′ N. and 75° 31′ E. Thence it flows down the northern slopes of the Vindhyan range, with a northward course generally, through Gwalior, Indore, and Sītāmau, and skirts Jhālawār, entering Rājputāna at Chaurāsgarh, 195 miles from its source. It receives many tributaries in Central India, the chief being the Chamblā and the SIPRA, both of which rise in the Vindhyan mountains. In Rājputāna the Chambal breaks through a scarp of the Patār plateau, the bed getting narrower and narrower, and after a winding course of 30 miles it receives the Bāmani at Bhainsrorgarh. Some three miles above the latter place are the well-known cascades or *chūlis*, the chief of which has an estimated fall of 60 feet. Here whirlpools are formed in huge caverns, 30 and 40 feet in depth, between some of which there is communication underground. Continuing north-east, the river forms for a short distance the boundary between Būndi and Kotah; and near Kotah city it is a broad sluggish stream, very blue in colour, flowing between magnificent overhanging cliffs and rocks rising sheer out of the water, covered with trees and thick brushwood and famous as game preserves. At the city there is a pontoon bridge, replaced by a ferry during the rains in consequence of the high and sudden floods to which the river is subject. Lower down, the Chambal again forms the boundary between Kotah and Būndi, and on its left bank is the interesting old village of Keshorai Pātan. The character of the scenery now alters completely. Above Kotah the neighbouring country is all precipitous rock, with wild glens and gullies and thick tangled overhanging brushwood, while below Pātan there are gently sloping banks, occasionally very picturesquely wooded and much intersected by ravines. Continuing north-east, the river is joined by the KĀLĪ SIND from the south and the Mej from the west, while lower down, where the frontiers of Jaipur, Kotah, and Gwalior meet, the PĀRBATI flows into it. The Chambal then forms the boundary between Jaipur, Karauli, and Dholpur on the one side and Gwalior on the other. From Jaipur territory it receives the BANAS, and, flowing under an irregular lofty wall of rock

along the whole southern border of Karauli, it emerges into the open country south of Dholpur town. Here it is, during the dry season, a sluggish stream 300 yards wide and 170 feet below the level of the surrounding country ; but in the rains it generally rises about 70 feet, and in extreme floods nearly 100 feet above summer level. The breadth then increases to more than 1,000 yards, and the current runs at the rate of 5½ miles an hour. The banks are intersected by a labyrinth of ravines, some of which are 90 feet deep and run back inland for a distance of three miles. At Rājghāt, three miles south of Dholpur town on the high road between Agra and Bombay, a bridge of boats is kept up between November and June, while a large ferry-boat plies during the rest of the year. A little to the east of this *ghāt* the river is crossed by a fine railway bridge of thirteen spans. After forming the boundary between the State of Gwalior and Agra and Etāwah Districts in the United Provinces, the Chambal crosses the latter, and falls into the Jumna 25 miles south-west of Etāwah town. After the two rivers have united, the crystal current of the Chambal may be distinguished for some distance from the muddy waters of the main stream. The total length of the river is about 650 miles, though the distance from its source to its junction with the Jumna is only 330 miles in a straight line. The Chambal is identified with the Charmwati of Sanskrit writers.

Chāmpāmati.—A river of Assam which rises in Bhutān, and after a tortuous southerly course through Goālpāra District, falls into the Brahmaputra after a course of 125 miles. It is of considerable use as a trade route, timber and rice being exported down its course, while the ordinary stores of the village trader are carried up it into the interior. During the rainy season boats of 4 tons burden can proceed as high as Garubhāsā, but in the dry season cannot get farther than Basugaon. The most important places on its banks are the markets at Garubhāsā and Chāpar Kāzipāra.

Chāmpāner.—Ruined city in the Kālol *tāluka* of the Pānch Mahāls District, Bombay, situated in 22° 29′ N. and 73° 32′ E., 25 miles north of Baroda, at the north-east base of Pāvāgarh, a fortified hill of great strength. It is a station on the Baroda-Godra chord railway, recently constructed. The name is derived from the *champak*-tree. The first building of the Musalmān city was begun in 1483, when Mahmūd Begara was besieging the Rājputs in PAVAGARH. As a sign that he would not leave till the fort was taken, he laid the foundation of a beautiful mosque. The fort fell in 1484, and the Rājputs fled to Chota Udaipur and Deogarh Bāriya, where their descendants still rule. Mahmūd Begara raised a noble city at the base of the hill, bringing his ministers and court from Ahmadābād, made it his capital, and styled it Mahmūdābād Chāmpāner. It grew rapidly and developed a flourishing trade, being especially famous for silk-weaving and the

manufacture of sword-blades. It is worthy of note that the materials for its iron industry were found in the adjacent hills. The greatness of Chāmpāner was short-lived. In 1535 it was pillaged by the emperor Humāyūn; and on the death of Sultān Bahādur Shāh the capital and court were transferred to Ahmadābād. By the beginning of the seventeenth century its buildings were falling into ruins, the jungle was encroaching, and the climate had greatly deteriorated. When taken by the British in 1803 only 500 inhabitants were found. Several attempts to colonize it have failed on account of the unhealthy climate; and at present the only inhabitants are two Kolī families and some *pūjāris* connected with the temple worship on Pāvāgarh.

The magnificent ruins of Chāmpāner make it a place of great interest. From the spurs on the north-east, the only side on which the hill is accessible, the fortifications of Pāvāgarh are brought down to the plain and closed by a wall one mile in length running due east and west. Outside this line, and in part replacing the old fortifications, is the Bhādar, or citadel, of Mahmud Begara. A perfect rectangle about three quarters of a mile long and 280 yards broad, the Bhādar is enclosed by a wall of massive blocks of freestone, strengthened by bastions at regular intervals, and beautified by small carved balconies in the best Musalmān style. This was the centre of the city, which stretched with fair gardens and beautiful buildings from Hālol, 4 miles away on the west, to an immense park on the east, the boundaries of which are marked by the traces of an extensive wall. On the north-east was constructed the Bada Talao ('great lake'), fed by a canal from the eastern hills. Ruins of beautiful workmanship are scattered over the whole area, and five of the mosques are still in fair preservation. Of the most notable of these, the Jāma Masjid, which stands about 50 yards from the east gate of the Bhādar, it may be said that for massive grandeur and perfect finish it is inferior to no Musalmān building in Western India. To the south east of the Bhādar, enclosed by a spur of the overhanging mountain, is a large deep reservoir completely surrounded with stone steps.

[Forbes, *Ras Māla*; Briggs, *Ferishta*, vol. iv, p. 70; Hamilton, *Hindustan*, vol. i, p. 681; *Transactions of Bombay Literary Society*, vol. i., p. 151; *Indian Antiquary*, vol. lxii, p. 5, and vol. xliii, p. 7.]

Champāran (*Champak-aranya*, 'the forest of *champak*' or *Michelia Champaca*).—District in the Patna Division of Bengal, occupying the north west corner of Bihār, lying between 26° 16′ and 27° 31′ N. and 83° 50′ and 85° 18′ E., with an area of 3,531 square miles. The District extends along the left bank of the Gandak for 100 miles, having a breadth of 20 miles at the northern, and 40 miles at the southern extremity. The northern boundary marches with Nepāl; on the west the Gandak separates it from the Gorakhpur District of the

United Provinces, and from the Bengal District of Sāran; while on the east and south it is bounded by Muzaffarpur, from which it is divided on the east by the Bāghmati river. The Nepāl frontier, where not naturally formed by rivers, is marked by ditches and masonry pillars, and for a considerable distance runs along the crest of the Someswar range. At one point the District crosses the Gandak, including a large tract of alluvial land which the river has thrown up on its right bank.

Physical aspects.

Outliers of the Himālayas extend for 15 miles into the alluvial plain which occupies the rest of the District. The Someswar range, which culminates in a hill of the same name 2,884 feet above sea-level, is generally clothed with fine trees, though in places it rises in bare and inaccessible crags. At its eastern extremity the Kudi river pierces it and forms the pass leading into Deoghāt in Nepāl, through which a British force successfully marched in 1815. The ascent of Someswar hill lies up the bed of the Jūri Pānī river amid romantic scenery. The summit overlooks the Maurī valley in Nepāl, and commands an unequalled view of Mount Everest, and of the great snow peaks of Dhaulāgiri, Gosainsthān, and Urnapūrnā. A bungalow has been built near the top of the hill. The other principal passes are the Someswar, Kāpan, and Harhā. South of the Someswar range the Dūn hills stretch across the District. To the north extend forests, in which the finest timber has long been cut, and great expanses of well-watered grass prairie, which afford pasturage to enormous herds of cattle.

The District is divided by the Burhī ('old') Gandak into two tracts of different characteristics. To the north is old alluvium, where the soil is mainly hard clay suitable for winter rice. The southern tract is recent alluvium deposited during the oscillations of the Gandak, a lighter soil which grows millets, pulses, cereals, and oilseeds. The Burhī Gandak, variously known as the Harhā, the Sikrāna, and the Masān, rises in the western extremity of the Someswar range, and is navigable as far as Sagauli by boats of 7 to 15 tons burden, though it is fordable during the dry season. Like the Gandak, the Burhī Gandak becomes a torrent in the rains. The Bāghmati is navigable by boats of 15 to 18 tons burden, and has a very rapid current. In the rains it rises rapidly and overflows its banks, sometimes causing great devastation. This river has often changed its course, and the soil is very light and friable along its banks. Through the centre of the District runs a chain of forty-three lakes, which evidently mark an old bed of the Great Gandak.

The surface is for the most part covered by alluvium, but the Someswar and Dūn hills possess the characteristic features of the lower Himālayan slopes. They consist of gneiss of the well-foliated type, passing into mica schist, while submetamorphic or transition rocks, and

sandstones, conglomerates, and clays, referable to the Upper Tertiary period, are largely represented.

The belt of forest along the northern border of the District contains *sāl* (*Shorea robusta*), *sissū* (*Dalbergia Sissoo*), and *tūn* (*Cedrela Toona*); the cotton-tree (*Bombax malabaricum*), *kusum* (*Schleichera trijuga*), and *khair* (*Acacia Catechu*) are also common. Bamboos thrive in the moist *tarai* tract: *sabai* grass (*Ischoemum angustifolium*) and the *narkat* reed (*Amphidonax falcata*) are also valuable products, and extensive thickets of tamarisk line the Gandak river. In the south cultivation is closer, and the crops leave room for little besides weeds, grasses, and sedges, chiefly species of *Panicum* and *Cyperus*, though on patches of waste land thickets of *sissu* very rapidly appear. The sluggish streams and lakes are filled with water-weeds, the sides being often fringed by reedy grasses, bulrushes, and tamarisk. Near villages, small shrubberies may be found containing mango, *sissu*, *Eugenia Jambolana*, various species of *Ficus*, an occasional tamarind, and a few other semi-spontaneous and more or less useful species. Both the palmyra (*Borassus flabellifer*) and date palm (*Phoenix sylvestris*) occur planted and at times self-sown, but neither in great abundance.

Tigers and leopards are found in the jungle to the extreme north, and bears are occasionally met with among the lower hill ranges in the same tract. *Nilgai* (*Boselaphus tragocamelus*) are fairly distributed over the whole District, while *sambar* (*Cervus unicolor*), spotted deer (*Cervus axis*), barking deer (*Cervulus muntjac*), and antelope (*Antilope cervicapra*) are found in the hills and jungle to the north, and hog deer (*Cervus porcinus*) in the *diāras* of the Gandak. Wild hog are common everywhere.

The mean temperature for the year is 76°, the mean maximum rises to 97° in April and May, and the mean minimum drops to 47° in December and January. The mean humidity for the year is 83 per cent., ranging from 68 in April to 92 per cent. in January. Rainfall is heavy in the submontane tract. The annual fall averages 55 inches, including 2·7 inches in May, 10·2 in June, 13·8 in July, 13·2 in August, 9·5 in September, and 3·3 in October; less than one inch falls in each of the other months. Owing to the progress made in clearing the forests, and the extension of cultivation in the north of the District, the rainfall is decreasing, while the extremes of temperature are becoming more marked and the mean temperature is rising.

The District, which was formerly subject to destructive floods from the Gandak and Bāghmati, has been protected from the former river by a Government embankment: only a small area near the Burhī Gandak and Bāghmati rivers is now liable to inundation.

Local traditions, archaeological remains, and the ruins of old-world cities point to a prehistoric past. Champāran was, in early Hindu

times, a dense primaeval forest, in whose solitudes Brāhman hermits studied the *Aranyakas*, which, as their name implies, were to be read in sylvan retreats. Thus the sage Vālmīki, in whose hermitage Sītā is said to have taken refuge, is alleged to have resided near the village of Sangrāmpur, so named from the famous fight which took place there between Rāma and his sons, Lava and Kusa; and the names of the *tappas* or revenue subdivisions are, with few exceptions, connected with Hindu sages. The District was included in the kingdom of Mithilā, which may have been a great seat of Sanskrit learning as early as 1000 B.C. To this period General Cunningham assigns the three rows of huge conical mounds at LAURIYĀ NANDANGARH; and there are interesting ruins at ARARĀJ and KESARIYĀ, while a fine specimen of an Asoka pillar stands at Lauriyā Nandangarh, and another Asoka pillar, known as the Rāmpurwā pillar, lies prone at Pipariyā. After the decay of Buddhism a powerful Hindu dynasty seems to have ruled from 1097 to 1322 at Simraun, in Nepāl, where extensive remains still exist. It was founded by Nānya Deva, who was followed by six of his line; the last was conquered by Hari Singh Deva, who had been driven out of Ajodhyā by the Muhammadans. His dynasty preserved its independence for more than a century later than South Bihār, which was conquered by Muhammad-i-Bakhtyār Khiljī in 1197.

History.

In 1765 the District passed, with the rest of Bengal, under the administration of the East India Company. It was treated as part of the neighbouring District of Sāran until 1866. In recent times the only event of importance has been the mutiny of the small garrison at SAGAULI in 1857.

Population.

The recorded population of the present area increased from 1,440,815 in 1872 to 1,721,608 in 1881 and to 1,859,465 in 1891, but fell to 1,790,463 in 1901. The first six years of the last decade were lean years, and they culminated in the famine of 1897; no deaths occurred from starvation, but the fecundity of the people was diminished. Outbreaks of cholera were frequent during the decade, and fever was also very prevalent. Immigration received a severe check, and not only did new settlers cease to arrive, but many of the old immigrants returned to their homes. The climate of Champāran is the worst in Bihār, especially in the submontane tract of the Bagahā and Shikārpur *thānas*. In the whole District malarial fevers and cholera are the principal diseases. Goitre is prevalent in the neighbourhood of the Chanchawat and Dhanauti rivers; and the proportion of deaf-mutes (2·75 per 1,000 among males) exceeds that of any other Bengal District. The principal statistics of the Census of 1901 are shown in the table on next page.

The population is sparse in comparison with the neighbouring

Districts, the density being only 507 persons per square mile, as compared with 901 in Sāran and 908 in Muzaffarpur. The most thickly populated *thānas* are Madhuban (810), Dhāka (771), and Adāpur (749), in the east of the District, where the conditions are similar to those in Muzaffarpur; but in the north-western *thānas* of Shikārpur and Bagahā, where cultivation is yet undeveloped and malaria is very prevalent, there are only 270 and 301 persons respectively per square mile. The population is almost entirely rural, the only towns being BETTIAH (24,696) and MOTIHARI, the head-quarters. Immigration to the half-reclaimed country in the north of the District formerly took place on a large scale from Gorakhpur, Sāran, and Muzaffarpur, and also from Nepāl. The language spoken is the Bhojpurī dialect of Bihārī; but Muhammadans and Kāyasths mostly talk Awadhī, and the Thārus have a dialect of their own, which is a mixture of Maithilī and Bhojpurī known as Madesī. The character officially and generally used for writing is Kaithī. Hindus number 1,523,949, or 85 per cent. of the total, and Muhammadans 264,086, or nearly 15 per cent.; the latter are considerably more numerous in Champāran than in any other Bihār District except Purnea.

Subdivision	Area in square miles	Number of Towns	Number of Villages	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write
Motihari	1,518	1	1,304	1,040,599	686	− 5·4	26,545
Bettiah	2,013	1	1,319	749,864	373	− 1·3	13,951
District total	3,531	2	2,623	1,790,463	507	− 3·7	40,496

The most numerous castes are Ahirs or herdsmen (189,000) and Chamārs or leather dressers (125,000). There are 85,000 Brāhmans, many of them imported by the Bettiah Rāj; 79,000 Rājputs; and 52,000 Bābhans. Koiris (84,000) and Kurmīs (99,000) are the best cultivators. Kāyasths (29,000) are the literary caste; and Nuniās (55,000), the hereditary manufacturers of saltpetre, make the best labourers. Among the aboriginal population are included the Thārus (27,000), who are almost entirely confined to the two frontier *thānas* of Shikārpur and Bagahā. These people live in scattered settlements in the malarious *tarai* along the foot of the Himālayas, from the Kosi river in Purnea almost as far as the Ganges. Originally of nomadic habits, they appear to have settled down as honest and industrious cultivators, utilizing the water of the hill streams to irrigate their scanty patches of rice cultivation. Their religion is a veneer of Hinduism over Animism. A gipsy branch of the Magahiyā sub-caste of Doms has acquired an

evil reputation in Champāran, as they are inveterate thieves and house-breakers, using knives and clubs to defend themselves when interfered with. Since 1882 attempts have been made to reclaim them, and they have been collected in two settlements where they have been provided with land for cultivation. Among the Muhammadans, the Jolāhās (74,000) and Shaikhs (72,000) are the most numerous communities. Of 205 Europeans most are engaged in the indigo industry. Of the total population, 80 per cent. are dependent upon agriculture, and 6 per cent. on industrial avocations; 8 per cent. are classed as general labourers; while less than one per cent. are engaged in commerce.

Christians number 2,417, including 2,180 native converts. They are nearly all Roman Catholics, and are to be found in the Bettiah sub-division, where two Roman Catholic missions are at work, one of them being a lineal descendant of the old Lhāsa mission, which, when ejected from Tibet, retreated first to Nepāl and afterwards to this District. A Protestant mission, styled 'The Regions Beyond Mission,' has been opened at Motīhāri.

Agriculture.

North of the Burhī Gandak hard clay soils, locally called *bāngar*, predominate; these are particularly suitable for rice cultivation, but they require irrigation; where autumn rice is grown, it is followed by spring crops of oilseeds and pulses, but if winter rice is grown, there is no second crop. In some parts of this northern tract a thin loam is also found, which will not grow rice, but bears crops of maize, barley, gram, pulses, and oilseeds; and in others, a sandy soil fit only for maize and inferior millets. South of the Burhī Gandak uplands predominate, except in the Kesariyā and Gobindganj *thānas*, where rice is grown in the marshes. The soil in the uplands is generally a light loam, and bears millets, pulses, wheat and barley, oilseeds, and indigo.

The chief agricultural statistics for 1903-4 are shown below, areas being in square miles:

Subdivision.	Total.	Cultivated.	Cultivable waste	Irrigated from canals.
Motīhāri	1,518	1,184	180	2
Bettiah	2,013	1,041	416	...
Total	3,531	2,225	596	2

A conspicuous feature is the large area of cultivable waste land, chiefly in the two north-western *thānas* of Bagahā and Shikārpur; its reclamation is proceeding rapidly, in spite of the prevalence of malaria, which saps the energy of the cultivators.

Owing to the comparatively sparse population, food-crops occupy

only 83 per cent. of the cultivated area. Rice, which is more generally grown than in Muzaffarpur or Sāran, extends over more than half the cultivated area of the District; two-thirds of this area is occupied by the winter crop, and the rest by early rice. The extensive cultivation of the latter is remarkable, and in Adāpur it actually exceeds the area under winter rice. Barley is the next food-grain of importance, followed by maize, wheat, and pulses. The non-food crops are indigo, oilseeds, thatching grass, poppy, and sugar-cane. Indigo is losing ground owing to the competition of the synthetic dye. As in other parts of Bihār, poppy is cultivated under a system of Government advances. The total area under poppy in 1903-4 was about 50,000 acres and the out-turn of opium 300 tons. Cow-dung and indigo refuse are used as manure for special crops, such as sugar-cane, tobacco, poppy, and indigo. Little advantage has been taken of the Land Improvements Act, but in the famine of 1897 a sum of 2·2 lakhs was advanced under the Agriculturists' Loans Act.

There is abundance of pasture in Bagahā and Shikārpur, which attracts great herds of cattle from the southern *thānas* and from adjoining Districts. Each family owns on the average three head of cattle. Goats also are numerous, and there are a few sheep, horses and ponies, mules and donkeys. Large cattle fairs are annually held at Madhuban and Bettiah.

Only 2 per cent. of the cultivated area is irrigated. The hill streams in the north afford facilities for irrigation; the water is carried along channels dug parallel with their beds, and in dry years weirs are thrown across them. A channel was dug in the famine of 1897, along which the water of the Masān stream is conducted for 20 miles; it is managed by the District officials. The Madhuban Canal, which takes off from a permanent dam in the river Tiar, is a protective canal 6·2 miles in length; it was constructed by the Madhuban *zamīndār* and has been bought by Government, but it is not yet fully utilized. The TRIBENI CANAL is under construction, and a small canal is also being made to carry the water of the Lālbeghiā river to the south of the Dhāka *thāna*. In years of drought these streams are often dammed by the Nepālese before they reach the District. In the south irrigation wells are occasionally dug, but there is a prejudice against them, as it is supposed that loam soils once irrigated lose the capacity to retain moisture.

Gold is sometimes washed in minute quantities from the Gandak river, and from the Pānchnad, Harhā, Bhabsa, and Sonāha hill streams in the north of the District. Beds of *kankar*, or nodular limestone, are found in workable quantities at Ararāj, and near Lauriyā, and along the banks of the Harhā river in the Bagahā *thāna*; it is used for road-metal and for burning into lime. Saliferous earth is found in all parts of the District, and a special caste, the Nuniās, earn a scanty livelihood by

extracting saltpetre. Sangrāmpur is the head-quarters of the industry. The out-turn in 1903-4 was 30,000 maunds.

Trade and communications.

The indigenous manufactures are confined to the weaving of coarse cotton cloth, blankets and rugs, and pottery work. Sugar-refining, which was introduced from the neighbouring District of Gorakhpur, chiefly flourishes in the Bettiah subdivision; it has recently been started at Sirāha factory on a large scale with modern machinery. Indigo is still the most important manufacture in the District. Colonel Hickey, the pioneer of indigo cultivation in Champāran, built a factory at Bāra in 1813. The Rājpur and Tarkoliā concerns were started by Messrs. Moran & Company, and in 1845 Colonel Taylor built Sirāha. Sugar, however, was the prominent industry until about 1850. A peculiar feature of the indigo industry in Champāran is the permanent hold which the planters have on the land. In 1876 the Bettiah Rāj was deeply involved in debt, and a sterling loan of nearly 95 lakhs was floated on the security of permanent leases of villages which were granted by the estate to indigo planters. The result is that, although a bare 6 per cent. of the cultivated area is actually sown with indigo, the planters are in the position of landlords over nearly half the District. There are 20 head factories with 48 out-works. Indigo is either cultivated by the planter through his servants under the *zirāt* or home-farm system, or else by tenants under what is known as the *āsāmiwār* system (*āsāmi* means a tenant); in either case the plant is cut and carted by the planter. When the crop is grown by tenants, the planter supplies the seed and occasionally also gives advances to the tenant, which are adjusted at the end of the year. The plant when cut is fermented in masonry vats, and oxidized either by beating or by currents of steam. The dye thus precipitated is boiled and dried into cakes. In 1894, which was a bumper season, the out-turn was 19,040 cwts., valued at 65.45 lakhs; in 1903-4 it was only 10,300 cwts., valued at 20.20 lakhs. Not less than 33,000 labourers are employed daily during the manufacturing season.

Champāran exports indigo, oilseeds, grain, and a little sugar, and imports salt, piece-goods, kerosene oil, coal, grain, and tobacco. The indigo and oilseeds go to Calcutta for shipment oversea, and the grain is exported to the neighbouring Bihār Districts and to the United Provinces. The imports come from Calcutta, except the grain, which is grown in the United Provinces. The main trade route to Nepāl lies through Champāran, and traffic is registered on the frontier. The bulk of the trade passes through Raxaul, the terminus of the Sagauli-Raxaul branch railway. The railways are the main arteries of commerce; but the Gandak and the Burhī Gandak also carry much traffic, the principal river marts being Gobindganj, Barharwā, Mānpur, and

Bagahā. The other trade centres are Bettiah, Motīhāri, Chainpatiā, Chāpkāhia, Rāmgarwa, Kesariyā, and Madhuban. The traders are Mārwāris, Kalwārs, and Agraharis, and to a small extent Muhammadans.

The Tirhut State Railway was opened to Bettiah in August, 1883. It is now known as the Bettiah branch of the Bengal and North-Western Railway, and connects with the East Indian Railway by a ferry across the Ganges at Mokameh; a branch from Sagauli runs to Raxaul on the Nepāl frontier. Including 242 miles of village tracks, the District contains 1,303 miles of road, of which only 15 miles are metalled. The roads commercially most important are those which lead from the Nepāl border to the railway and to the Gandak river. The District board has not sufficient funds to maintain the roads in good repair. Bridges are few in number, and the income from ferries is considerable.

Famine.

Champāran is very liable to famine. It suffered severely in the great famine of 1770, which is said to have killed one-third of the entire population of Bengal. In 1866 the north of the District was seriously afflicted, and the relief afforded being insufficient, the mortality reached the appalling total of 50,000 persons. The next famine was in 1874, when distress was most acutely felt in the Bagahā, Shikārpur, and Adāpur *thānas*. Relief operations were undertaken on a lavish scale; nearly 10 lakhs was spent in the District and 28,000 tons of grain were imported. There was on this occasion no mortality from starvation. In 1897 occurred the greatest famine of the century, brought about by deficient and unfavourably distributed rainfall in 1895 and 1896, and intensified by extraordinarily high prices, consequent on similar causes operating over a great part of India. The out-turn of early rice in 1896 was very poor, and there was an almost total failure of the winter rice crop. The most seriously affected parts were the Rāmnagar and Shikārpur *thānas*, where both crops failed completely. Relief works were started in November, 1896. The Government expenditure amounted to nearly 25 lakhs, of which over one-half was spent in wages and a quarter in gratuitous relief, while 3 lakhs was advanced as loans. The number of individuals employed, reckoned in terms of one day, was 18,000,000, or rather more than in 1874.

Administration.

For administrative purposes, the District is divided into two subdivisions, with head-quarters at MOTĪHĀRI and BETTIAH. The revenue work at Motīhāri is carried on by the Collector, assisted by 3 Assistant and Deputy-Collectors, and at Bettiah by the subdivisional officer and a Sub-Deputy Collector.

The District and Sessions Judge, who is also Judge of Muzaffarpur,

is assisted in the disposal of civil work by two Munsifs stationed at Motīhāri. The criminal courts include those of the Sessions Judge, the District Magistrate, and the Deputy and Assistant Magistrates at Motīhāri and Bettiah. Burglary and cattle-thefts are common; dacoits from Nepāl occasionally make raids into the District.

The earliest settlement was made in 1582 by Todar Mal, Akbar's finance minister; but the area measured was only 148 square miles, as compared with 3,200 square miles now assessed, and the revenue fixed was 1·38 lakhs. It is noteworthy, however, that Todar Mal's revenue rate was as high as Rs. 1–6 0 per acre, or four times what it is now. The revenue was altered in 1685, and again in 1750, with the result that, when the East India Company obtained possession of the District in 1765, it slightly exceeded 2 lakhs. The revenue dwindled year by year until 1773, when it was only 1·39 lakhs; but in 1791 the Decennial Settlement raised it to 3·51 lakhs, and two years later the District was permanently settled for 3·86 lakhs. The subsequent increase to 5·15 lakhs was due to the resumption, between 1834 and 1841, of lands held without payment of revenue under invalid titles. The current demand in 1903–4 was 5·15 lakhs, payable by 1,247 estates. This gives an incidence of only R. 0–5–6 per cultivated acre, and represents 17 per cent. of the rental of the District, and only 1·4 per cent. of the estimated value of the gross agricultural produce. The BETTIAH RĀJ, the Rāmnagar Rāj, and the Madhuban Bābu own between them nearly the entire District. With the exception of seven estates paying Rs. 840, the District is permanently settled.

Between 1892 and 1899 the whole District, with the exception of a hilly tract to the north, was cadastrally surveyed on the scale of 16 inches to the mile, and a complete record-of-rights was framed. This has enormously strengthened the position of the cultivator, and has done much to protect him in the peaceful occupation of his holding, and from oppressive enhancement of his rent. The average size of a ryot's holding is 5·19 acres, the largest holdings being found in the sparsely populated tracts in the north-west. Owing to the abundance of waste land, rents are low, the average rate per acre being only Rs. 1–13–9. Ryots at fixed rates pay on the average Rs. 1–2–3, settled and occupancy ryots Rs. 1–14–1, and non-occupancy ryots Rs. 1–12–10. Produce rents are paid for only 4½ per cent. of the area held by occupancy ryots, but of the area leased to non-occupancy and under-ryots 22 and 65 per cent. respectively are so held. No fewer than 86 per cent. of the ryots have a right of occupancy in their lands, and they hold 83 per cent. of the cultivated area. It has been decided by the civil courts that a ryot in Champāran cannot transfer his occupancy right in a holding without the consent of the landlord; but in point of

fact an unusually large number of transfers are taking place, and nearly half the purchasers are money-lenders.

The following table shows the collections of land revenue and of total revenue (principal heads only), in thousands of rupees:—

	1880-1.	1890-1	1900-1	1903-4.
Land revenue .	5,13	5,14	5,17	5,15
Total revenue .	8,80	10,31	10,84	11,14

Outside the MOTIHĀRI and BETTIAH municipalities, local affairs are managed by a District board. Its income in 1903–4 was Rs. 1,55,000, including Rs. 86,000 derived from rates; and the expenditure was Rs 1,34,000, of which Rs. 71,000 was spent on public works and Rs. 32,000 on education.

The District contains 9 police stations and 14 outposts. The police force under the District Superintendent in 1903 comprised 2 inspectors, 35 sub-inspectors, 24 head constables, 323 constables, and 48 town *chaukidārs*: the rural police consisted of 136 *daffadārs* and 2,405 *chaukidārs*. A small number of *chaukidārs* are organized into a special frontier patrol, with the object of preventing the inroads of bands of robbers from Nepal The District jail at Motihāri has accommodation for 356 prisoners, and a subsidiary jail at Bettiah for 26.

Education is backward in Champāran, only 2·3 per cent. of the population (4·5 males and 0·1 females) could read and write in 1901. The number of pupils under instruction was 21,803 in 1892–3 and 19,785 in 1900-1. In 1903–4, 18,627 boys and 807 girls were at school, being respectively 14·0 and 0·5 per cent. of the children of school-going age. The number of educational institutions, public and private, in that year was 790, including 11 secondary, 693 primary, and 95 special schools. The expenditure on education was Rs. 86,000, of which Rs. 10,000 was met from Provincial funds, Rs. 31,000 from District funds, Rs. 1,300 from municipal funds, and Rs. 25,000 from fees. The educational institutions include a third-grade *guru*-training school where teachers are trained, and 16 lower primary schools for the education of aboriginal or depressed castes or tribes, 3 being for Magahiyā Doms and the remainder for the benefit of the Tharus.

In 1903 the District contained 7 dispensaries, of which 3 had accommodation for 68 in-patients. The cases of 74,000 out-patients and 1,028 in-patients were treated, and 3,662 operations were performed. The expenditure was Rs. 24,000 and the income Rs. 31,000, of which Rs. 700 was derived from Government contributions, Rs. 4,000 each from Local and from municipal funds, and Rs. 17,000 from subscriptions.

Vaccination is compulsory only in the two municipal towns. Elsewhere it is very backward, and in 1903–4 only 50,000 persons, or 28·6 per 1,000 of the population, were successfully vaccinated.

[Sir W. W. Hunter, *Statistical Account of Bengal*, vol. xiii (1877); C. J. Stevenson-Moore, *Settlement Report* (Calcutta, 1900).]

Champāwat.—Eastern *tahsīl* of Almorā District, United Provinces, comprising the *parganas* of Bhābar Tallā Des, Dārmā, Sīrā, Askot, Sor, and Kālī Kumaun, and lying between 28° 57′ and 30° 35′ N. and 79° 51′ and 81° 3′ E., with an area of 2,255 square miles. Population increased from 97,968 in 1891 to 122,023 in 1901. There are 1,462 villages, but no town. The demand for land revenue in 1903–4 was Rs. 65,000, and for cesses Rs. 8,000. The *tahsīl* extends along the Kālī river from the frontiers of Tibet to the thick forest in the sub-montane tract called the Bhābar. It thus contains the whole variety of scenery, climate, and physical aspects which are found in the District to which it belongs. One of the chief trade routes to Tibet runs from Tanakpur at the base of the hills to the Lipū Lekh and Dārmā passes. In 1903–4 the area under cultivation was 169 square miles, of which 14 were irrigated.

Chāmrājnagar Tāluk.—South-eastern *tāluk* of Mysore District, Mysore State, lying between 11° 40′ and 12° 8′ N. and 76° 43′ and 77° 12′ E., with an area of 487 square miles. The population in 1901 was 110,196, compared with 91,250 in 1891. The *tāluk* contains one town, CHĀMRĀJNAGAR (population, 5,793), the head-quarters; and 190 villages. The land revenue demand in 1903–4 was Rs. 1,57,000. The *tāluk* is watered by the Honnu-hole or Suvarnāvati, which flows from beyond the south border north into the Yelandūr *jāgīr*. It is crossed by two dams, from which channels are taken off. Temporary dams are also made when the river is low, and many large tanks are thus fed. The whole *tāluk* is remarkably rich and fertile, a fine well-watered level plain, stretching away north-west from the BILIGIRI-RANGAN HILLS, which form the eastern and southern boundary. The soils range from black and rich red to poor and gravelly, the latter lying in the west. *Jola* is the staple 'dry crop.' Mulberry is grown without irrigation in the black soil. There is no cotton and little sugar-cane. The gardens of areca-nut, coco-nut, and betel-vine on the banks of the river are very fine. Some coffee is grown under European management. The wild date-tree is very prolific, and fills all the hollows. The original elephant *kheddas* are in the forests to the south-east.

Chāmrājnagar Town.—Head-quarters of the *tāluk* of the same name in Mysore District, Mysore, situated in 11° 55′ N. and 76° 56′ E., 22 miles south-east of Nanjangūd railway station. Population (1901), 5,973. The former name of the town was Arakottāra, and a Jain *basti* was built here in 1117. The present name was given in 1818 by the

Mysore Rājā, whose father was born here. The Rājā built the large Chāmarājesvara temple and dedicated the town to his father's memory. It is a thriving place, in a fertile plain of black soil. To the east lies the populous suburb of Rāmasamudram, near to which are the ruins of an ancient city said to be Manipur. The municipality dates from 1873. The receipts and expenditure during the ten years ending 1901 averaged Rs. 1,900 and Rs. 2,000. In 1903-4 they were Rs. 3,800 and Rs. 3,900.

Chānasma.--Head-quarters of the Vadāvli *tāluka*, Kadi *prānt*, Baroda State, situated in 23° 42′ N. and 72° 10′ E. Population (1901), 8,183. It possesses local offices, a dispensary, a magistrate's court, and a vernacular school. The municipal board receives an annual grant of Rs. 1,700. Chānasma is famous as containing the largest Jain temple in the Gaikwar's territory. The building, which is said to have cost 7 lakhs, is made almost entirely of Dhrāngadhra stone, profusely carved, while the interior is adorned with marble flooring.

Chānda District.—Southernmost District of the Central Provinces, in the Nāgpur Division, lying between 18° 42′ and 20° 52′ N. and 78° 48′ and 81° E., with an area of 10,156 square miles. It is bounded on the north by the Nāndgaon State and Bhandāra, Nāgpur, and Wardhā Districts; on the west and south-west by the Yeotmāl District of Berār and the Nizām's Dominions; and on the east by the Bastar and Kānker States and Drug District. The shape of the District is an irregular triangle with its base to the north and tapering to the south, where the narrow strip of the Sironchā *tahsil* runs down beside the Godāvari river. The Wardhā, Prānhita, and Godāvari rivers successively mark the western border, while to the north the Wunnā divides Chānda from Wardhā District for a short distance previous to its junction with the Wardhā. The western portion, between the Wardhā and Erai rivers, and a small strip along the north consist of undulating open country. East of this, to the Waingangā, the surface is generally broken either by isolated hills or small ranges, large areas are covered with forest, and the soil is generally sandy. The Waingangā flows from north to south through the centre of the District to its junction with the Wardhā at Seonī, when their combined streams become the Prānhita. The greater part of the country east of it is included in the *zamīndāri* estates, and consists of an elevated plateau stretching from north to south along the entire length of the District, from which again rise numerous ranges of hills, while dense masses of forest extend over plateau and valleys alike. As already noted, three of the chief rivers of the Province the Wardhā, Waingangā, and Godāvari—are included in the drainage system of Chānda, while the Seonāth, the largest feeder of the Mahānadi, rises in the north-eastern *zamīndāris*. Each of these

Physical aspects.

streams has numerous tributaries, the most important of those joining the Waingangā being the Andhāri, Botewāhi, Denī, Garhvī, and Kobrāgarhī, which with the main river carry off the drainage of the central and eastern portion of the District. The chief affluents of the Wardhā are the Pengangā and Erai, while the Bāndiā drains the south-eastern *zamīndāris* and joins the Indrāvati. West of the Waingangā the principal hills are the Chimur, Mūl, and Phersāgarh ranges and east of it those of Surjāgarh and Tipāgarh. The general height of the plain country is about 900 feet above sea-level in the north of the District, falling to 658 feet at Chānda and 406 at Sironchā. Except in the open country on the west and north, the whole District is thickly wooded.

East of the Waingangā gneissic rocks constitute the principal formation, granite, gneiss, and quartz being the typical rocks. To the west of that river the District is mainly occupied by rocks of the Upper Gondwāna system, consisting of red clay and soft sandstone, covered by coarse, loosely-compacted sandstone and shale. Fossil remains have been found in three well-defined seams of limestone. The Wardhā valley coal-field occupies a belt of 75 miles along the Wardhā river, and an area of about 1,000 square miles.

The forest vegetation in the District is of a mixed character. Teak (*Tectona grandis*) is fairly general, but is not anywhere very plentiful. The principal trees are *sāj* (*Terminalia tomentosa*), *bījāsāl* (*Pterocarpus Marsupium*), *rohan* (*Soymida febrifuga*), *kaddam* (*Stephegyne parvifolia*), *haldu* (*Adina cordifolia*), *semur* (*Bombax malabaricum*), *mahuā* (*Bassia latifolia*), *dhaurā* (*Anogeissus latifolia*), *tendū* (*Diospyros melanoxylon*), *garāri* (*Cleistanthus collinus*), and *palās* (*Butea frondosa*). *Salai* (*Boswellia serrata*) is very abundant on the dry hills and plateaux; other trees met with are *lehrā* or satin-wood (*Chloroxylon Swietenia*), *reunjhā* (*Acacia leucophloea*), *baherā* (*Terminalia belerica*), *siris* (*Albizzia odoratissima*), *kaikrā* (*Garuga pinnata*), *moyen* (*Odina Wodier*), *ghant* or *mokhā* (*Schrebera swietenioides*), *pader* (*Stereospermum chelonoides*), *anjan* (*Terminalia Arjuna*), and *nirmali* (*Strychnos potatorum*). Near villages tamarinds and mangoes abound, and in the south of the District groves of the palmyra palm (*Borassus flabellifer*) occur.

Almost all the wild animals belonging to the Central Provinces occur in Chānda District, with the probable exception of the hunting leopard. Tigers and leopards are comparatively frequent, and bears are common in parts. The bison occurs in suitable forests. The buffalo is found only in the Ahiri *zamīndāri* and part of the Ghot *pargana*. *Sāmbar* are fairly numerous in the forests, but spotted deer are comparatively rare. The *bārāsinghā* or swamp deer is found in Ahiri in small numbers, and the mouse deer in the same forests. Antelope are decreasing in numbers in the open country on the west.

In the Ahiri range is found the large maroon squirrel. Wild hog are numerous, and large packs of wild dogs have been most destructive to the game. All the usual game-birds are also found, and duck and snipe visit the District in considerable numbers during the cold season.

The climate is slightly hotter than that of Nāgpur, and the heat of the summer months is trying. On the whole, however, the climate is healthy, and for a rice District malaria is exceptionally rare. The autumn months are as usual the most unhealthy.

The annual rainfall averages 51 inches at Chānda town and 46 at Warorā. Failure of rainfall has been very infrequent.

History.

Bhāndak, a village near Chānda, was possibly the capital of the old Hindu kingdom of Vākātaka, embracing the modern province of Berār and the parts of the Central Provinces south of the Narbadā and east as far as the Waingangā. Inscriptions show that this kingdom existed from the fourth to the twelfth century, or until shortly after the rise into power of the Gond dynasty of Chānda. The Gonds probably became prominent between the eleventh and twelfth century on the ruins of the old Hindu kingdom. The names of nineteen kings are given as having reigned from the foundation of the dynasty to 1751. The Chānda kings are called the Ballār Sāhi family after Sarjā Ballār Sāh, the ninth prince, who may have lived in the beginning of the fifteenth century, and who assumed this title after proceeding to Delhi. The eleventh prince, Hir Sāh, built the Chānda citadel, and completed the city walls which had been founded by his predecessor. His grandson, Kārn Sāh, was probably the first of the line to adopt the Hindu faith. The son of this Kārn Sāh is mentioned in the *Ain-i-Akbarī* as an independent prince, paying no tribute to Delhi, and having an army of 1,000 cavalry and 40,000 infantry. From the time of Akbar until the days of the Marāthās, the Chānda princes seem to have been tolerably independent and powerful, for both in their own annals and in those of the Deogarh line we find them recorded as gaining an important victory over the latter rising Gond power in the middle of the seventeenth century. Probably it is to this period that may be referred the carvings of the Chānda device, a winged lion, which have lately been found on the walls of Gāwīlgarh, a famous hill fortress on the southern brow of the Sātpurā range, which was for long the stronghold of Berār. The Gond kings of Chānda are shown by their architectural achievements—the 5½ miles of stone walls of Chānda, its fine gates, and its regal tombs, the stone embankment and remains of the palace on the Junonā tank, and other buildings—to have attained a comparatively advanced degree of civilization. Their rule was peaceful and beneficent, they extended cultivation and irrigation, and under them the District attained a degree of prosperity which has perhaps not since been equalled. In 1751 the Gonds were

ousted, and the District passed under the control of the Marāthās, forming from this period a portion of the Nāgpur kingdom. Chānda with Chhattīsgarh was allotted in succession to the younger brothers of two of the Bhonsla Rājās, and under their wasteful and rapacious government the condition of the District greatly deteriorated. In 1817 occurred the rebellion of Appa Sāhib; and in support of his cause the *zamīndār* of Ahiri garrisoned Chānda against the British, while an army dispatched to Appa Sāhib's assistance by the Peshwā of Poona reached the Wardhā river ten miles west of Chānda. It was attacked and defeated by two British brigades at Pāndharkawadā in April, 1818; and the British forces then proceeded to Chānda and, after a few days' siege, carried the town by assault, the regular garrison falling to a man in its defence.

From 1818 till 1830 the District was administered by British officers under Sir Richard Jenkins, and subsequently made over to Raghujī III, the last Bhonsla Rājā. On his death without heirs it lapsed to the British Government in 1853. During the Mutiny the two petty *zamīndārs* of Monumpallī and Arpallī with Ghot rebelled, and raised a mixed force of Gonds and north-country Rohillas. Two telegraph officers encamped on the Prānhita were murdered. The disturbance was put down and the rebel *zamīndārs* captured, largely by the aid of Lakshmī Bai, *zamīndār* of Ahiri. As a reward she received sixty-seven villages of their forfeited territories, comprising the Ghot *pargana*, which the *zamīndār* of Ahiri holds in ordinary proprietary right. The descendant of the old Gond ruling family still lives in Chānda and receives a small political pension, first granted by the Marāthās and continued by the British. In 1860 the British Government obtained by cession from the Nizam six *tāluks* on the left bank of the Godāvari, which were formed into the Upper Godāvari District of the Central Provinces. In 1874 the Upper Godāvari District was abolished, and four *tāluks* became the Sironchā *tahsīl* of Chānda District, while the remaining two were incorporated with the Madras Presidency. It has recently been decided to transfer three of these *tāluks* to Madras[1].

Chānda is rich in antiquarian remains, the most important of which are described in the articles on BHĀNDAK, CHĀNDA TOWN, and MĀRKANDĪ. Of the others but a bare list can be given. They include the cave temples at Bhāndak and Winjbāsani, Dewāla and Ghūgus; the rock temple in the bed of the Wardhā below Ballālpur, which during the flood season is several fathoms under water; the ancient temples at Mārkandī, Nerī, Warhā, Armorī, Deotek, Bhatāla, Bhāndak, Wairāgarh, Wāghnak, Keslāborī, and Ghorpeth; and the forts of Wairāgarh, Ballālpur, Khatorā, and Segaon.

[1] This transfer had been sanctioned and the arrangements for it were under consideration at the time of writing.

The population of the District at the last three enumerations was as follows: (1881) 649,146, (1891) 697,610, and (1901) 601,533. Between 1881 and 1891 the rate of increase was 7½ per cent. During the last decade the population has decreased by 14·6 per cent. The District had poor crops both in 1896 and in 1897, and was very severely affected by famine in 1900. The largest decreases were in the *zamīndāris* of the Chānda and Bramhapurī *tahsīls*, which lost 15½ and 24½ per cent. respectively, while the decline in the Bramhapurī *tahsīl* outside the *zamīndāris* was 20 per cent. In the Sironchā *tahsīl* the *jowār* crop did not fail in 1897, and the people gained by the high prices prevailing for produce. The District has two towns, CHĀNDA and WARORĀ, and 2,584 inhabited villages. The principal statistics of population, based on the Census of 1901, are shown below:—

Population.

Tahsīl.	Area in square miles	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Chānda	1,174	1	319	121,040	103	− 8·6	3,046
Warorā	1,282	1	406	134,547	105	− 6·9	3,510
Bramhapurī	897		340	115,049	128	− 20·2	2,049
Sironchā	3,095	...	421	55,465	18	+ 7·2	788
Garhchirolī	3,708	...	1,098	155,214	42	− 25·3	0,029
District total	10,156	2	2,584	581,315	57	− 14·6	11,422

The transfer of the *tāluks* of Nugur, Albāka, and Cherlā of the Sironchā *tahsīl*, covering an area of 593 square miles and containing 142 villages with 20,218 inhabitants, to the Madras Presidency, which was sanctioned in 1906, has been allowed for in the statistics given above. In 1905 the Ahiri *zamīndāri* was transferred to the Sironchā *tahsīl*, and a new *tahsīl* was formed at Garhchirolī, containing the *zamīndāris* of the Bramhapurī *tahsīl* and those of the Chānda *tahsīl* except Ahiri, with a strip of non-*zamīndāri* area. The corrected District figures of area and population are 10,156 square miles and 581,315 persons. The statistics given in the remainder of this article are for the District as it stood before the transfer of territory, with the exception of those of density and number of villages. The density of population is only 57 persons per square mile, being the lowest in the Province. The open country is fairly well populated, but the large *zamīndāri* areas are for the most part covered with forest and contain very few inhabitants. About 77 per cent. of the population are Hindus and 21 per cent. Animists. Muhammadans number more than 10,000, of whom about a fourth live in Chānda and Warorā. There is great diversity of language, as of caste, in the District, 63 per cent. of the population speak Marāthī,

more than 16 per cent. Gondī, 12 per cent. Telugu, and 5 per cent. the Chhattīsgarhī dialect of Eastern Hindī. The Telugu population reside principally in the Sironchā *tahsīl*, but many persons belonging to Telugu castes are found in several large villages of the Chānda *tahsīl*. The speakers of Chhattīsgarhī belong chiefly to the Ambāgarh-Chaukī *zamīndāri* in the north-east corner of the District, which adjoins Nāndgaon. The Marāthī speakers live all over the open country, while the forests east and south of the Waingangā are populated chiefly by Gonds.

Brāhmans (5,000) are the largest landholders. Kunbīs (95,000) and Marāthās (1,500) together form 17 per cent. of the population. Kohlīs number 7,000; but with the decay of sugar-cane cultivation and the repeated failures of rice, they have fallen into poor circumstances. Other numerous castes are Ahīrs or herdsmen (17,000), and Telis or oil-pressers (32,000), both of whom are now engaged principally in cultivation. Gonds (135,000) form nearly a fourth of the whole population. The Māria Gonds are almost a separate race. They are generally tall and well built, in great contrast to the ordinary type of Gond. Their marriage is adult, and the consent of the girl is essential. Sexual licence before marriage is an ordinary custom; but after marriage husbands not infrequently murder their wives, if they discover that they have been unfaithful. In a District with so many rivers, Dhīmars (31,000) or fishermen are naturally numerous, forming about 5 per cent. of the population. They are generally in poor circumstances, as also are the impure menial caste of Mehras or Mahārs (74,000), who constitute 12 per cent. The whole of the Sironchā *tahsīl* is held by a superior proprietor of the Velamā caste, who resides at Hyderābād. About 70 per cent. of the population were returned in 1901 as dependent on agriculture.

Christians number 266, of whom 204 are natives. The Church of Scotland supports a mission in Chānda with four schools, while in Sironchā the American Methodist Mission, founded in 1893, has several schools principally for the depressed Mehra or Dher boys.

Agriculture.

Black soil is found in the tracts adjoining the Wardhā river, and in the *doāb* between the Wardhā and Erai comprising most of the Warorā *tahsīl*, and north of Chimur. An alluvial belt of black soil mixed with sand also occurs on the banks of the Waingangā. Elsewhere the yellow soil formed from metamorphic rock is generally prevalent. Inferior sandy and stony soils cover a large area in the *zamīndāris*. In the Sironchā *tahsīl* a good deal of alluvial black soil is found on the banks of the Godāvari. Linseed, gram, and wheat are grown principally in the black-soil lands of the Chānda Haveli and those adjoining the Wardhā river, while *jowār* is the chief crop in Sironchā and the Warorā *tahsīl*, and rice in the centre and east of the District.

[1] About 4,851 square miles, amounting to 48 per cent. of the total area of the District, are included in the twenty *zamīndāri* estates, while 9,000 acres are held free of revenue, and 8,000 have been sold outright under the Waste Land Rules. More than 300 square miles have been allotted for settlement on the *ryotwāri* system, of which 55 square miles are cultivated and pay a revenue of Rs. 21,000. The principal statistics of cultivation in 1903-4 are shown below, areas being in square miles:—

Tahsil	Total	Cultivated	Irrigated.	Cultivable waste.	Forests.
Chānda	1,174	283	44	367	554
Warorā	1,282	515	25	366	346
Bramhapuri	897	202	56	306	443
Sironchā	3,095	86	6	279	480
Garhchirolī	3,708	426	51	1,104	849
Total	10,156	1,512	182	2,422	2,672

Considerable areas of land are at present under old and new fallows. Rice covers 355 square miles, *jowār* 349 square miles, linseed and *til* 95 square miles each, cotton 79 square miles, wheat 67 square miles, and gram 31 square miles. In recent years the acreage of the wheat crop has fallen by a half, while that of *jowār* has increased by the same proportion. *Jowār* is grown both as an autumn and spring crop, the latter predominating. Cotton is also grown both as an autumn and spring crop, the latter practice being followed in the rice country in the same manner as with *jowār*, the reason in both cases probably being to avoid the deleterious effect produced by a heavy rainfall. The spring cotton is said to have the stronger staple. *Til* has become a crop of some importance in recent years. Less than 1,000 acres are now under ugar cane; its cultivation has decreased with the unfavourable seasons, owing to the inability of the local product to compete in price with that from Northern India. Bhāndak and the adjoining village of Chichordī contain a number of betel-vine gardens, and the leaf produced is of good quality. In the *zamīndāris* the Gonds still practise *dahya* or shifting cultivation. A plot of ground is covered with brushwood, 4 to 6 inches deep. This is fired just before the rains, and, when they break, rice is scattered broadcast among the ashes. In the second year a small millet is sown, and the land is then left fallow for ten years, as the available timber fuel near it has been exhausted, and its transport from a distance is extremely laborious. Rents are paid by the 'axe' of land, which is roughly about an acre.

The area under the valuable cotton crop has nearly trebled in the last few years, while manure is now more largely applied to both rice

[1] In the statistics of cultivation and cultivable waste here given, 2,994 square miles of waste land in the *zamīndāri* estates which have not been cadastrally surveyed are excluded from the total area of the District.

and cotton. During the decade ending 1904 Rs. 92,000 was advanced under the Land Improvement Loans Act, principally for the construction of irrigation tanks, and 5½ lakhs under the Agriculturists' Loans Act.

As regards the extent of irrigation Chānda is second only to Bhandāra. In a normal year nearly 230 square miles, or 22 per cent. of the cropped area, are irrigated. In 1903-4 the area was 182 square miles. About 7,000 acres of this consist of garden crops and sugar-cane, and the remainder of rice. Irrigation is applied in the usual manner from tanks, both by percolation and by cutting an outlet in the embankment and carrying the water to the fields through mud channels. A very few of the largest tanks are provided with an inferior masonry outlet, but most of them have no sluices or permanent waste-weirs. The supply of water depends on a sufficient quantity of rainfall to fill the tanks, and in years of complete drought only a quarter of the ordinary area can be irrigated. There are nearly 6,000 tanks in the District, with a capacity of irrigating an average of 24 acres each, and about 1,600 wells, which supply an acre and a half each. The best tanks are situated in the tract north of Mūl, on both sides of the Nāgpur road. Profitable schemes for tanks to irrigate an additional 100,000 acres at a cost of about 20 lakhs have been prepared by the Irrigation department, in addition to a number of other protective projects. A scheme for a canal in the *doāb* between the Waingangā and Andhāri rivers has been suggested.

Cattle are bred all over the District in the forest tracts, the bulls being selected and kept for breeding. The bullocks used for rice cultivation are small and usually white, while in the spring-crop country large bullocks, like those of Berār, and usually red and white or reddish brown in colour, are employed. There is a considerable difference in the price, and also in the working life of the two breeds, those used in the rice country being much cheaper, and, owing to the severity of the work, shorter-lived than the others. Buffaloes are used for the carriage of the rice plants in transplantation, but they are not much in favour. Most of the *ghī* produced is from buffalo's milk. Goats and sheep are kept in very large numbers, the total of sheep being greater than in any other District of the Central Provinces except Raipur. They are kept by the professional shepherd castes of Dhangars and Kuramwārs, and the manure which they afford is valuable. In Sironchā there is a special breed of large, straight-haired sheep, generally white, and sometimes reddish brown in colour. They grow to 3 feet high at the shoulder, and give 1 to 2 seers (2 to 4 lb.) of milk which is used for the manufacture of *ghī*. The rams are used for fighting, and matches are arranged on festivals.

Government forests cover 2,672 square miles, or about 26 per cent. of the total area of the District. In addition, the *zamīndāri* and

mālguzāri forests cover 3,919 square miles. The forests are well distributed, and very few villages are more than three miles from some part of them. The most important tracts are the Ahiri range, which supplies teak for export, and the Mohurlī and Haveli ranges, which used to supply the Warorā colliery with pit-props, fuel, and charcoal. The ordinary species of trees found have already been described. The extensive bamboo forests west of the Waingangā seeded in 1900, but most of the seed was destroyed by an insect, so that there has been little reproduction. A considerable quantity of lac was formerly gathered; but it was recklessly taken for sale during the famine, leaving no wood for stock, and the supplies have consequently been depleted. The forest revenue in 1903-4 amounted to about 2 lakhs, of which Rs. 75,000 was realized from sales of timber and Rs. 55,000 from grazing fees.

Forests.

A colliery was worked by Government at Warorā in the Wardhā valley coal-field from 1871, the output of coal in 1904 being about 112,000 tons, which sold for 5·2 lakhs, while the net earnings were nearly 2 lakhs. About 1,000 persons were employed in the colliery. The coal was sold to the Great Indian Peninsula Railway, to municipalities for water-works, and to cotton-mills and ginning factories. The Warorā colliery was closed in 1906. Another coal-field exists at Bandar, about 30 miles north-east of Warorā, which contains three seams with a total thickness of 38 feet. Seams have also been found at Ballālpur, six miles south of Chānda, at Dudholi, a village near it, and at Ghūgus on the Wardhā river. Test borings have been made at Ballālpur by Government, but owing to the proximity of the river difficulty has been found in sinking the pits. A prospecting licence has been granted for Dudholī. There are old copper mines at Thanwāsana in the Ghātkul tract, at Govindpur near Talodhī, and at Mendhā near Rajolī. Iron ores of good quality occur, the best-known localities being Dewalgaon, Gunjewāhi, Lohāra, Pīpalgaon, and Ratnapur. The ores at Lohāra and Pīpalgaon contain 69 and 71 per cent. of iron respectively. About 1,150 tons of iron were smelted in 1904 by primitive charcoal furnaces, but the industry is not prosperous. Diamond mines formerly existed on the Sātti river, a tributary of the Kobrāgarhī near Wairāgarh, and gold-dust is obtained by washing in the Waingangā and Indrāvati rivers. Good building stone is found in several localities, and red, yellow, and white clay at Chānda. Limestone brought from Berār is burned at Bhāndak, and lime is also prepared at Ratnapur near Gadborī and Nawegaon.

Minerals.

The *tasar* silkworm is bred by Dhīmārs in the forests of the Wairāgarh and Sindewāhi ranges, and silk is woven by the caste of Koskatis at Chāmursi and one or two other villages. It is principally used for turbans. Silk loin-cloths and *cholīs* or bodices for women are

woven by a few houses of Patwīs at Chānda with thread obtained from Bengal; they are usually red or yellow in colour. The weaving of silk-bordered cotton cloths is a considerable industry, and the products of Chānda were formerly exported over a large area. Chānda, Chimur, and Armorī are the principal centres, but there are a number of weavers in all the large villages in the north of the District. The cloths are sometimes embroidered with gold and silver thread. Ordinary coarse cotton cloth is woven by large numbers of Mahārs from mill-spun thread. The better class of coloured cloths are woven with thread dyed in the mills, but thread is sometimes dyed black locally with imported indigo. The inferior cloths are dyed red and blue in the ordinary manner by Chhīpas and Rangāris, the principal centres being Chānda, Mūl, Saoli, and Bramhapurī; but only the poorer classes wear cloths dyed by indigenous methods, as they have a peculiar odour. Gold and silver ornaments of a special pattern are made at Chānda, specimens of which were sent to the Delhi Exhibition. They are made with a base of silver, on which are fixed pieces of lacquered wood of different patterns, the surface being then covered with gold-leaf. Brass and copper vessels are made at Chānda and Nerī in the Bramhapurī *tahsīl*, and also ornaments of a mixture of three parts of brass and one of zinc, which are worn by the poorer classes. Good lacquer-work is turned out at Pomurnā. Articles of bamboo are also lacquered at Chānda. Ornamental slippers are made at the same place, patterns being worked on them with silk thread. Warorā has a fire-clay brick and tile factory formerly worked by Government in connexion with the colliery, and two cotton-presses and four ginning factories have been opened in the last few years.

Trade and communications.

The principal exports by rail are oilseeds, timber, hides and horns, cotton, and pulses. Rice goes chiefly by cart to Berār, Hyderābād, and Wardhā. Small quantities of wheat are sometimes sent by road from the Bramhapurī *tahsīl* to Nāgpur. The oilseeds are linseed, *til*, castor, and mustard, while *mahuā* oil is also an important product. Cotton has only come into prominence in the last few years. Large quantities of teak-wood are sent from Alāpillai and from the northern *zamīndāris* by road. Bamboos, gum, myrabolams, and lac are also exported from the forest near the railway. Grass and charcoal are sometimes taken from the northern *zamīndāris* for sale in Raipur District. *Sāmbar* horns are exported for the manufacture of knife-handles. The flowers of the *mahuā* are sent to Wardhā and Berār. Superior bricks and tiles are made in the Warorā colliery, and are sold locally and also sent out of the District. Silk-bordered cloths are largely exported to Nāgpur, Berār, and Hyderābād. Leathern shoes and ropes are sent to Berār. Salt, sugar, thread, cotton piece-goods, metals, and kerosene oil are the principal imports. The salt used is sea-salt from Bombay. Sugar comes

principally from the Mauritius, and to a less extent from Northern India. *Gur*, or unrefined sugar, is largely imported from Bangalore and Northern India, the trade having sprung up within the last ten years.

The Wardhā-Warorā branch of the Great Indian Peninsula Railway enters the north-western corner of the District, with stations at Nāgri and Warorā. An extension of the railway through Chānda to the coal-mines at Ballālpur is now under construction. Nearly the whole external trade of the District passes through Warorā station, which is connected by metalled roads with Chānda and Chimur, and by an unmetalled road with Wūn in Berār. The Mūl and Sironchā roads are the most important routes leading from Chānda into the interior of the District. During the rainy season some produce is carried by boat on the Waingangā between Bhandāra and Armorī, and during the famine grain was brought down by boat to Garhchirolī. Considering its size, the District is not well provided with roads. The length of metalled roads is 79 miles, and of unmetalled roads 398 miles; the annual expenditure on maintenance is Rs. 54,000. The Public Works department has charge of 298 miles of road and the District council of 179. There are avenues of trees on 58 miles.

Famine.

Previous to the last decade there is little record of distress in Chānda. The District suffered in 1868-9, but not so severely as other parts of the Province, and little or no relief appears to have been given. From this date conditions were generally prosperous until 1891-2, from which year there were successive short crops until 1896-7, caused in three years by cloudy and rainy weather during the winter months, and in three years by premature cessation of the monsoon. The failure of 1896-7 was not in itself severe, as an average out-turn of half the normal was obtained from all crops, but following on the previous lean years it caused some distress. Relief was principally given by granting loans for the construction and improvement of tanks. The mortality was never excessive. In 1899-1900 a complete failure of crops occurred and severe famine prevailed, aggravated by epidemics of cholera and dysentery arising from the scarcity of water, and 32 per cent. of the population were at one time on relief. Several road works were undertaken; 54 new tanks were constructed, and 238 repaired or improved. The total expenditure was 44 lakhs.

Administration.

The Deputy-Commissioner is aided by four Assistant or Extra-Assistant Commissioners. For administrative purposes the District is divided into five *tahsīls*, each of which has a *tahsīldār* and a *naib-tahsīldār*. Owing to the extent of its forests the District has two Forest officers, both of the Imperial service.

The civil judicial staff consists of a District and a Subordinate Judge, and a Munsif for each of the Chānda, Warorā, and Bramhapurī *tahsīls*. The Divisional and Sessions Judge of the Nāgpur Division has jurisdiction in Chānda. Crime and litigation are of the ordinary type.

During the ten years previous to the commencement of British management the collections of land revenue averaged 3·34 lakhs. The practice was to give short leases for a period of three to five years, leaving the *pātel* or village headman from 13 to 15 per cent. of the 'assets.' Various miscellaneous taxes and transit dues realized under the Marāthās were abolished when the District became British territory. The last period of Marāthā rule, from 1830 to 1853, was characterized by reckless oppression. Many of the old hereditary headmen were dispossessed and their villages made over to Brāhman officials on a reduced assessment, while in order to make up the loss of revenue every device was employed to extort increased sums from those who remained. In 1862–3, when the first regular settlement was begun, the demand had fallen to 2·65 lakhs. The revision of assessment was concluded in 1869, the term fixed being thirty, twenty, and thirteen years in different areas. The tract settled for thirteen years consisted of certain villages in the Ghot *pargana*. The revised revenue was fixed at 2·64 lakhs, of which Rs. 22,000 was 'assigned'; but this sum excludes Rs. 59,000 on account of *zamīndāri* estates, and the revenue of the Sironchā *tahsīl*, which then constituted a separate District. The village headmen were made proprietors, and all tenants received occupancy rights. The Amgaon, Rājgarh, Ghātkul, and Wairāgarh *parganas*, in which the revenue had been fixed for only twenty years, were summarily settled in 1886–8. On the expiry of the thirty years' settlement, a fresh revision was undertaken in 1898, and is still in progress, its conclusion having been delayed by the famines. The collections of land and total revenue in recent years are shown below, in thousands of rupees:

	1880–1	1890–1	1900–1	1903–4
Land revenue . .	2,78	3,03	2,19	3,36
Total revenue . .	6,43	7,82	5,89	8,65

The management of local affairs outside municipal areas is entrusted to a District council and four local boards, each having jurisdiction over one *tahsīl*, while the funds raised for Sironchā are administered by the Deputy-Commissioner. The income of the District council in 1903–4 was Rs. 54,000; and the expenditure on public works was Rs. 11,000, on education Rs. 21,000, and on medical relief Rs. 5,000. CHĀNDA and WARORĀ are municipal towns.

The District Superintendent of police is usually aided by an Assistant, and has a force of 663 officers and men, including 3 mounted constables,

besides 1,889 village watchmen for 2,584 inhabited villages. Chānda town has a District jail with accommodation for 148 prisoners, including 13 females, and Sironchā a subsidiary jail accommodating 53 prisoners. The daily average number of prisoners in the Chānda jail in 1904 was 61, and in the Sironchā jail between 3 and 4.

In respect of education Chānda stands thirteenth in the Province, about 2 per cent. of the population (3·9 males and 0·1 females) being able to read and write. The percentage of children under instruction to those of school-going age is 8. Statistics of the number of pupils under instruction are as follows: (1880–1) 3,670, (1890–1) 5,495, (1900-1) 5,278, (1903–4) 6,998, including 265 girls. The educational institutions comprise a high school at Chānda town conducted by private individuals, 3 English middle schools, 4 vernacular middle schools, and 114 primary schools. There are four girls' schools in the District. Three schools for boys and one for girls are conducted by the Chānda Mission. The expenditure on education in 1903-4 was Rs. 42,000, of which Rs. 38,000 was derived from Provincial and Local funds and Rs. 4,000 from fees.

The District has 14 dispensaries, with accommodation for 52 in-patients. In 1904 the number of cases treated was 91,306, of whom 506 were in-patients, and 1,498 operations were performed. The expenditure was Rs. 35,000, of which the greater part was provided from Provincial and Local funds.

Vaccination is not compulsory in any part of the District, but 32 per 1,000 of the population were successfully vaccinated in 1903–4.

[Major Lucie Smith, *Settlement Report*, 1869. A District Gazetteer is being compiled.]

Chānda Tahsīl.—Central *tahsīl* of the District of the same name, Central Provinces. In 1901 its area was 5,058 square miles, and its population 195,385. In 1905 the constitution of the *tahsīl* was entirely altered, the large Ahiri *zamīndāri* estate being transferred to the Sironchā *tahsīl*, and the remaining *zamīndāri* estates with a tract on the east of Chānda to the new Garhchiroli *tahsīl*. The revised area of the Chanda *tahsīl* is 1,174 square miles, and its population 121,040, the density being 103 persons per square mile. The population in 1891 of the area now constituting the *tahsīl* was 132,477. The *tahsīl* contains one town, CHANDA (population, 17,803), the District and *tahsīl* head-quarters; and 319 inhabited villages. Excluding 554 square miles of Government forest, 59 per cent. of the available area is occupied for cultivation. With the exception of a small open black-soil tract on the western border, the *tahsīl* consists of rice country and is covered over a great part of its area with hill and forest. The land revenue demand for the new *tahsīl* was approximately Rs. 60,000, before the revision of settlement now in progress.

Chānda Town.—Head-quarters of the District of the same name, Central Provinces, situated in 19° 57′ N. and 78° 58′ E., at an angle formed by the junction of the Erai and Jharpat rivers, and 28 miles from Warorā, on the Great Indian Peninsula Railway. Population (1901), 17,803. The name is a corruption of Chandrapur, 'the city of the moon.' Chānda was the capital of a Gond dynasty, whose supremacy lasted from the twelfth to the eighteenth century. The appearance of the city from without is most picturesque. Dense forest stretches to the north and east. On the south rise the blue ranges of Mānikdrug, and westward opens a cultivated rolling country with distant hills. The town itself is surrounded by a continuous line of wall, five and a half miles in circuit, with crenellated parapets and broad ramparts, traced in re-entering angles and semicircular bastions. The thickness of the walls is 10 feet, and for the greater part of the circuit they are in a good state of preservation. They were built by the Gond king Hir Sāh, and repaired by the Marāthās. They now form an efficient protection against the floods which are not infrequently caused by the Erai river, when driven back by the swollen current of the Wardhā at their confluence. The walls are pierced by four gateways and five wickets. The most noticeable buildings in the town are some temples, and the tombs of the later Gond kings. The principal temples are those of Achaleshwara, Mahākāli, and Murlīdhar. They are generally plain with pyramidal roofs in steps, the only exception being the fane of Achaleshwara, the walls of which are covered with a multitude of small sculptured panels. The tombs are plain substantial buildings, rather heavy in appearance. Outside the walls is the large Ramāla tank, from which water is brought into the town in pipes constructed under Gond rule. Along the pipes at intervals are round towers, or *hathnīs*, at which the water can be drawn off and carried into small reservoirs. Outside the town to the south-east, and lying on the ground, is a collection of colossal figures of Hindu deities carved from the basalt rock and left lying *in situ*. The largest of them measures 26 by 18 by 3 feet. They are known as Rayappā's idols; and the story is that they were prepared by a wealthy Komati named Rayappā, who intended to build a gigantic temple to Siva, but died before he could complete it. The greater part of the space within the walls is vacant, and some of it is sown with crops, though suburbs have grown up outside.

Chānda was constituted a municipality in 1867. The municipal receipts during the decade ending 1901 averaged Rs. 32,000. The income has largely expanded in recent years, and in 1903–4 amounted to Rs. 48,000, chiefly derived from octroi. The trade of the town is now much less than it was, but Chānda is still the commercial centre of the District. It has also several hand industries, among which may be mentioned cloth-weaving of silk or of cotton with silk borders,

dyeing, the manufacture of ornamental slippers, gold- and silver-work of a peculiar pattern, bamboo-work, and carpentering. A large annual fair is held just outside the Achaleshwara Gate in the month of April, the total attendance at which is estimated at 100,000 persons. Cattle, tobacco, and garlic are the principal articles sold. Chānda possesses a high school, supported by private subscription, with 63 pupils, an English middle and various other schools, and two dispensaries. The Episcopal Church of Scotland has established a mission station here, and maintains three schools.

Chandap.—Petty State in MAHĪ KĀNTHA, Bombay.

Chandarnagar.—French settlement near Calcutta. *See* CHANDERNAGORE.

Chandauli.—Eastern *tahsīl* of Benares District, United Provinces, comprising the *parganas* of Barhwal, Bārā, Dhūs, Mawai, Mahwārī, Majhwār, Narwan, and Rālhūpur, and lying east of the Ganges, between 25° 8′ and 25° 32′ N. and 83° 1′ and 83° 33′ E., with an area of 426 square miles. Population fell from 251,542 in 1891 to 237,840 in 1901. There are 703 villages and two towns, including RĀMNAGAR (population, 10,882). The demand for land revenue in 1903–4 was Rs. 2,80,000, and for cesses Rs. 64,000. The density of population, 558 persons per square mile, is the lowest in the District. On the south-east the Karamnāsā forms the boundary, and its tributaries, the Godhai and Chandraprabhā, carry off some of the surplus water; but the drainage generally is defective. The soil is largely clay, and rice is the chief crop. In 1903–4 the area under cultivation was 332 square miles, of which 89 were irrigated. Wells supply about two-thirds of the irrigated area, and tanks or marshes the remainder.

Chandausī.—Town in the Bilāri *tahsīl* of Morādābād District, United Provinces, situated in 28° 27′ N. and 78° 47′ E., at the junction of branches of the Oudh and Rohilkhand Railway from Morādābād and Bareilly to Alīgarh. Population (1901), 25,711. Till the middle of the nineteenth century Chandausī was a mere village, but it has now become an important trading centre, largely owing to the extension of railway communications. The town is traversed by broad well-made roads, and contains a municipal hall, a police station, a *munsifī*, and a branch of the American Methodist Mission. It has been a municipality since 1863. During the ten years ending 1901 the income and expenditure averaged Rs. 26,000. In 1903–4 the income was Rs. 33,000, chiefly from octroi (Rs. 27,000); and the expenditure was Rs. 34,000. Chandausī is an emporium for all sorts of country produce collected from the neighbourhood. Sugar is chiefly exported to the Punjab and Rājputāna, while grain goes to the dearest market. Cotton is sent to Calcutta and Cawnpore. Salt from Rājputāna and piece-goods are the chief imports. During the last few years a considerable

trade has arisen in hemp (*san*), which is sent to Calcutta and Bombay. There were four cotton-presses and gins, employing 161 hands in 1903, and one hemp-press. A little cotton cloth is made for local use. The middle school has 191 pupils, and the municipality manages two schools and aids four others attended by 276 pupils.

Chāndbāli.—Port in the Bhadrakh subdivision of Balasore District, Bengal, situated in 20° 47′ N. and 80° 45′ E., on the left bank of the Baitaranī river, 8 miles west of its confluence with the Brāhmanī, and 20 miles from its mouth. Population (1901), 1,826. It is connected with the interior by the Matai, the Bhadrakh road, and various tidal creeks. The importance of the port has decreased owing to the opening of the Bengal-Nāgpur Railway, but it still possesses a large trade, and is supervised by a Port Officer. The sole export of importance is rice; the chief imports are cotton twist, piece-goods, kerosene oil, salt, spices, and gunny-bags.

Chanderī.—Town and old fort in the Narwar district of Gwalior State, Central India, situated in 24° 43′ N. and 78° 9′ E., 1,300 feet above sea-level. Population (1901), 4,093. The town and fort are most picturesquely situated in a great bay of sandstone hills, entered by narrow passes, which in former days made the place of considerable strategic importance. The whole expanse of plain enclosed by the hills is highly fertile, and contains five large lakes and numerous smaller sheets of water, the surrounding hill-sides being thickly covered with tree jungle. The old town occupies a considerable area beyond the present walls, and is full of picturesque mosques, dwelling-houses, and other buildings, most of which are, however, in a ruinous state. The houses are built of the local sandstone, and the tombs, which are exceedingly numerous, are often ornamented with fine pierced stone screens. Formerly a rich and flourishing place, the town is now on the decline.

The old fort stands 230 feet above the town. It is entered through the Khūni-darwāza or 'gate of blood,' so called from the fact that criminals were executed by being hurled from the battlements above, and dashed to pieces at its foot. The only building of interest in the fort is a palace, but the ramparts are still standing, more or less complete. The fort is badly supplied with water, the principal source being the Kīrat Sāgar, a tank at the foot of the hill, reached from above by a covered way, which at the same time formed the weak point in its defences, and materially assisted Bābar in his assault upon it. Southwest of the fort a curious gateway has been made through the hill-side. The cutting is 192 feet long by 39 broad and 80 high, and in the middle a portion of rock has been left, which is hewn into the form of a gateway, with a pointed arch flanked by sloping towers. A tablet records the construction of the gate by Zamān Khān, son of Sher

Khān, who was governor of the fort under Ghiyās-ud-dīn of Mālwā, in 1490.

About nine miles distant is Old Chanderī, now a mere heap of ruins buried in jungle. When this site was deserted for the present one is not known, but such remains as exist are Muhammadan in character. The foundation of the town is invariably ascribed to the Chandels, but the name has possibly suggested this derivation.

The earliest reference to Chanderī is by Alberūnī (A.D. 1030). In 1251 Ghiyās-ud-dīn Balban captured the place for the emperor Nāsir-ud-dīn. In 1438 it fell to Mahmūd Khiljī I of Mālwā, who took it after a siege of some months. In 1520 it was seized by Rānā Sanga of Chitor, who made it over to Medini Rai, the revolted minister of Mahmūd II of Mālwā. From Medini Rai it was captured by Bābar after a fierce struggle, which is graphically described by that monarch in his diary. In 1540 it passed to Sher Shāh and became part of Shujāat Khān's governorship. When Mālwā fell to Akbar, Chanderī became the head-quarters of a *sarkār* in the *Sūbah* of Mālwā. It was then a large place, with 14,000 stone houses and 1,200 mosques. Chanderī was taken by the Bundelās in 1586 and was held by Rām Sāh, a son of Rājā Madhukar of Orchhā. In 1680 Devi Singh Bundelā was appointed governor, and the fort remained in his family until 1811, when it was taken by Jean Baptiste Filose, for Daulat Rao Sindhia. On the formation of the Gwalior Contingent in 1844, it was included in the territory assigned to the British Government for the maintenance of that force. During the Mutiny, Chanderī was captured by Sir Hugh Rose on St. Patrick's Day, 1858, after a stubborn fight. It then remained a British possession till 1861, when it was restored to Sindhia (*see* JHANSI DISTRICT). It has long been famous for the manufacture of delicate muslins, an industry which is still carried on, but in a decaying state. The cloth is of unusual fineness and delicacy, while the coloured gold and silk borders are of surpassing beauty. A school, a State post office, a police station, and an inspection bungalow are situated in the town.

[A. Cunningham, *Archaeological Survey Reports*, vol. ii, p. 402.]

Chandernagore (*Chandarnagar*). French settlement situated in 22° 52′ N. and 88° 22′ E., on the bank of the Hooghly, a short distance below Chinsura. Population (1901), about 25,000. The town was permanently occupied by the French in 1688, though previously it had been temporarily occupied by them at a date given as 1672 or 1676. It did not, however, rise to any importance till the time of Dupleix, during whose administration more than 2,000 brick houses were erected, and a considerable maritime trade was carried on. In 1757 the town was bombarded by the English fleet under Admiral Watson, together with a land force commanded by Clive, and captured, the fortifications and houses being afterwards demolished. It was restored to the French

in 1763, but was retaken when hostilities were renewed in 1794. It was again restored by the Peace of Amiens in 1802, but was retaken in the same year and was held by the English till 1816, when it was finally restored to the French.

The former grandeur of Chandernagore has disappeared, and at present it is little more than a quiet suburban town with little external trade. The railway station on the East Indian Railway is just outside French territory, 22 miles from Calcutta (Howrah). The chief administrative officer is the Administrator, who is subordinate to the Governor of the FRENCH POSSESSIONS. On the assumption of the opium monopoly by the British, the French Government of Chandernagore obtained by the convention of 1815 the right to purchase 300 chests of opium annually at the auction sales held in Calcutta, at the average price obtained at the monthly sales. This right has, however, been commuted for the payment of an annual subsidy of Rs. 3,000 to the French Government; and a further subsidy of Rs. 2,000 a year is also paid to that Government in consideration of their undertaking to suppress the smuggling of opium from their territory into British India, or the traffic by export or import of any opium other than that purchased at the Hooghly treasury. The peculiar situation of Chandernagore affords unusual facilities for the escape of thieves and for the operations of smugglers in opium and other excisable articles. The chief public institution is the Collège Dupleix, formerly called St. Mary's Institution, founded in 1882 and under the direct control of the French Administrator. There is also a bust of Dupleix in a little Square.

Chandīpur.—Village in the head-quarters subdivision of Balasore District, Bengal, situated in 21° 27′ N. and 87° 2′ E., on the sea-coast, about 9 miles east of Balasore town, and near the mouth of the Burhābalang river. Population (1901), 627. The Ordnance Proof department has a sea-range here where cannon are tested. The department has also a magazine and all necessary instruments at Chandīpur. Since the railway has brought Balasore within easy reach of Calcutta, there has been an influx of visitors who come to enjoy the sea-breezes at Chandīpur, and the place possesses possibilities as a health resort; there is a long level beach, and sea-bathing is possible owing to the absence of surf. A branch line of the Bengal-Nāgpur Railway to connect Chandīpur with Balasore has been projected. Large quantities of excellent fish are caught here, which are carried by coolies to Balasore and thence railed to Calcutta.

Chāndod.—Village and place of pilgrimage in the Rewā Kāntha Agency, Bombay, situated in 21° 58′ N. and 73° 29′ E., on the right bank of the Narbadā, 30 miles south-east of Baroda, and 12 miles south of Dabhoi, with which it is connected by a section of the Gaikwār's narrow-gauge Dabhoi State Railway. Population (1901), 2,613. Close

to Chāndod is the village of Karnāli. Both these villages, with their temples and certain sacred spots on the river, are visited twice a year by more than 20,000 pilgrims. The chief occasions are the full moon of Kārtik (October–November) and the full moon of Chaitra (March–April). What James Forbes wrote (*Oriental Memoirs*) 120 years ago is still true:—

'No place in the western province of Hindustān is reputed so holy as Chāndod: none at least exceeds it; its temples and seminaries almost vie with the fane of Jagannāth and the college of Benares.'

The ownership of the village vests jointly in the Gaikwār of Baroda and the Māndwa chief in Rewā Kāntha.

Chāndor Tāluka (or Chāndvad).—Central *tāluka* of Nāsik District, Bombay, lying between 20° 9′ and 20° 24′ N. and 73° 56′ and 74° 29′ E., with an area of 377 square miles. There are two towns, MANMĀD (population, 7,113) and CHĀNDOR (5,374), the head-quarters; and 107 villages. The population in 1901 was 55,968, compared with 51,529 in 1891. The density, 148 persons per square mile, is slightly above the District average. The demand for land revenue in 1903–4 was 1·1 lakhs, and for cesses Rs. 8,000. Except in the eastern corner, which is roughened by bare hills and which drains east to the Girnā, Chāndor is a waving plain, sloping gently down to the Godāvari. The Chāndor range constitutes the northern boundary. In the centre and south the soil is a deep, rich, black alluvium, yielding heavy crops of wheat and gram. In other parts the soil is poor and shallow. The *tāluka* is well provided with roads. The cultivators are generally in debt, but some villages show signs of material comfort.

Chāndor Town (Chāndvad).—Head-quarters of the *tāluka* of the same name in Nāsik District, Bombay, situated in 20° 20′ N. and 74° 15′ E., at the foot of a range of hills varying from 4,000 to 4,500 feet in height, 40 miles north-east of Nāsik town and 14 miles north of the Lāsalgaon station on the Great Indian Peninsula Railway. Population (1901), 5,374. Before the opening of the railway there was a small manufacture of copper and brass pots and ironwork. The town contains a dispensary. Chāndor is probably the Chandrādityapur of Dridhaprahār, the founder of the Chāndor Yādava dynasty (801–1073), who cleared it of robbers. In 1635 it was captured by the Mughals. It then passed to the Marāthās, but was retaken by Aurangzeb in 1665. It is said to have been greatly enlarged by Holkar in 1763, and remained until 1818 the private property of that chief, who started a mint here. In 1804 it was captured by Colonel Wallace, but was restored to Holkar until 1818, when it finally passed to the British. The Mahārājā had a large and once magnificent house in the centre of the town. The old fort of Chāndor, 3,994 feet high, on the flat summit of a hill rising

immediately above the town, is nearly inaccessible, and commands an important *ghāt* or pass on the route from Khāndesh to Bombay. Here are a temple of Renuka-devī and some Jain caves. The temple is of comparatively modern construction, but contains two interesting images of wood, lying in the inner courtyard and much bedaubed with red paint. They both appear to be Roman Catholic images, one representing the Annunciation and the other St. Anna with the infant Virgin on her knee, but now bear the names of Hindu goddesses and serve as such. The Jain cave which is excavated in the cliffs of the Chāndor fort hill contains images of the Tīrthankars or Jain hierarchs, the principal figure being that of Chandraprabha with the crescent moon beneath him. There are also figures of Ganpati and Devī, and the cave is now called after the latter.

Chāndpur Subdivision.—Subdivision in the south-west of Tippera District, Eastern Bengal and Assam, lying between 23° 2′ and 23° 29′ N. and 90° 34′ and 91° 2′ E., with an area of 588 square miles. The subdivision is an alluvial flat intersected in all directions by rivers and streams, which are partially affected by the tides. In 1901 the population was 483,208, compared with 371,553 in 1891. The density was 822 persons per square mile. This is the most progressive part of the District. It contains one town, CHĀNDPUR (9,362), the head-quarters; and 1,103 villages.

Chāndpur Town.—Head-quarters of the subdivision of the same name in Tippera District, Eastern Bengal and Assam, and a terminus of the Assam-Bengal Railway, situated in 23° 13′ N. and 90° 38′ E., at the junction of the Meghnā river and a channel from the Dākātia. Population (1901), 9,362. The town is growing rapidly, owing to its favourable situation for the jute traffic. Chāndpur was constituted a municipality in 1897. In 1903–4 the income was Rs. 17,000, of which Rs. 8,000 was derived from a tax on houses and lands, and Rs. 4,000 from ferry tolls; and the expenditure was Rs. 15,000. The municipality maintains a large Pasteur filter. The town has steamer communication with Calcutta (through the Sundarbans), Goalundo, Nārāyanganj, Assam, and Cāchār; and several jute-presses are located here.

Chāndpur.—Town in the District and *tahsīl* of Bijnor, United Provinces, situated in 29° 8′ N. and 78° 16′ E., 21 miles south of Bijnor town. A line from Chāndpur to Gajraula on the Morādābād-Ghāziābād branch of the Oudh and Rohilkhand Railway has been surveyed. Population (1901), 12,586. Chāndpur was the chief town of a *mahāl* or *pargana* under Akbar, but nothing more is known of its history. It was occupied by the Pindāris in 1805, and by Musalmān rebels in 1857. Up to 1894 it was the head-quarters of a separate *tahsīl*. The town is well paved and drained, and presents a thriving appearance. It contains a dispensary and a police station, and has been

a municipality since 1866. During the ten years ending 1901 the income and expenditure averaged Rs. 7,000. In 1903-4 the income was Rs. 11,000, chiefly from octroi (Rs. 8,000); and the expenditure was Rs. 11,000. The principal manufactures are pipe-bowls and water-bottles of earthenware, and coarse cotton cloth. A middle school has 200 pupils and 12 smaller schools about 530.

Chāndpur.—An almost uninhabited village in the Lalitpur *tahsīl* of Jhānsi District, United Provinces, situated in 24° 30′ N. and 78° 19′ E. It is noted for its ruins of the Chandel period. A beautiful tank covered with lotus is surrounded by the remains and contains a sculptured column. Three temples stand on its embankment, another group on a peninsula which once formed an island, and others at a little distance away. There are several inscriptions, one dating from A.D. 868.

Chandra-Drona.—Mountain range in Mysore. *See* BĀBA BUDAN.

Chandragiri (or Payaswani).—River in South Kanara District, Madras. It rises in the Western Ghāts on the Coorg frontier, in 12° 27′ N. and 75° 40′ E., and flows nearly due west across the District, entering the sea at Kāsaragod. Its total length is about 60 miles, and it is navigable for twelve miles from its mouth by small boats. A large fort of the same name, picturesquely situated on the southern bank and attributed to Sivappa Naik of Bednur, commands the mouth of the river. The stream forms the boundary between the true Malayālam country on the south and the ancient Tuluva, and according to traditional custom no Nāyar woman may cross it.

Chandragiri Tāluk.—*Tāluk* in the north of North Arcot District, Madras, lying between 13° 24′ and 13° 47′ N. and 78° 58′ and 79° 35′ E., with head-quarters at the village of the same name. Area, 548 square miles. It contains 231 villages and one town, the municipality of TIRUPATI (population, 15,485). Population in 1901, 113,550, compared with 114,436 in 1891. Demand for land revenue and cesses in 1903-4, Rs. 1,30,000. Chandragiri ('Moon hill') is one of the most hilly and picturesque *tāluks* in the District. The Eastern Ghāts run through the north of it and the Kārvetnagar hills occupy most of the south. It may, indeed, be said to consist of hills. These are more or less bare and rocky, but enclose narrow valleys rich with alluvial soil brought down from their sides. Its physical characteristics render it a most fertile area, the scrub jungle upon the hills retaining moisture and keeping the subsoil water at a high level, and also providing abundance of leaf-manure, which the ryots are not backward in using. Some of these jungles form extensive and valuable forests.

Chandragiri Town.—Head-quarters of the *tāluk* of the same name in North Arcot District, Madras, situated in 13° 35′ N. and 79° 19′ E., on the right bank of the Swarnamukhi river. Population (1901), 4,923.

Historically, Chandragiri has much interest. To its fort the fallen monarchs of the great empire of Vijayanagar fled after their power had been crushed at the battle of Tālikotā in 1565, and here for some years they maintained a pretence of their former state. The fort is said to have been built in A.D. 1000 by Immadi Narasimha Yādava Rāyalu, one of the kings who reigned at Nārāyanavanam in the Kārvetnagar *zamindāri*, and to have been afterwards improved by the Vijayanagar kings. It fell in 1646 into the power of the Sultān of Golconda. In 1758 it was held by Abdul Wahhāb Khān, brother of the Nawāb of the Carnatic. In 1782 Haidar Alī compelled the place to surrender, and it remained subject to Mysore until the Treaty of Seringapatam in 1792.

The fort is built on a huge granite rock rising about 600 feet above the surrounding country, and both from its site and fortifications must in former times have been impregnable by storm. A large space upon the southern side of the hill is enclosed by strong walls, now in ruins, surrounded by a ditch once fed by a natural spring, but now almost dry. Within the walls stand the remains of the palace of the Rājās, several small temples, the ruined mud walls of the Muhammadan palace, and some *mantapams*. The main building is about 150 feet long. It faces south, with an imposing and well-balanced façade of three storeys. The sky-line is pleasingly broken by Hindu terminations, resembling the tops of *gopurams* or towers, the largest surmounting the *darbār* hall. This apartment measures 21 feet square. It is surrounded by a colonnade, and rises through two storeys in such a way that the larger quantity of light comes through the upper tier of arches, which thus forms a sort of clerestory. According to local tradition, the original document granting to the East India Company the site of Fort St. George was signed here in 1639. The palace is maintained in good order by the Public Works department, and is now used as a travellers' bungalow.

The modern town of Chandragiri is neatly built and lies to the east of the hill on which stands the fort. The old town has almost disappeared, and its site has been converted into fertile fields. The surrounding country is very productive and the scenery charming. Interesting archaeological remains abound, consisting of deserted temples, great reservoirs, and finely carved *mantapams* or porches.

Chandrakonā.—Town in the Ghātāl subdivision of Midnapore District, Bengal, situated in 22° 44′ N. and 87° 32′ E. The population has steadily declined from 21,311 in 1872 to 9,309 in 1901. Early in the eighteenth century the town was taken from a Hindu family by Rājā Kīrti Chandra Rai of Burdwān, and it has since belonged to the Burdwān Rāj. It was formerly an important weaving centre, but the industry has died out. Chandrakonā was constituted a municipality in 1869. The income and expenditure during the decade ending 1901-2

averaged Rs. 4,400 and Rs. 4,300 respectively. In 1903–4 the income was Rs. 5,300, chiefly derived from a tax on persons (or property tax); and the expenditure was Rs. 4,800.

Chandrāvati.—Old city in Jhālawār State, Rājputāna. *See* JHĀLRAPĀTAN TOWN.

Chāndūr Tāluk.—South-eastern *tāluk* of Amraotī District, Berār, lying between 20° 31′ and 21° 13′ N. and 77° 40′ and 78° 18′ E., with an area of 855 square miles. The population fell from 198,106 in 1891 to 192,805 in 1901; and its density, 225 persons per square mile, is the lowest in the District, the Melghāt *tāluk* excepted. The *tāluk* contains 307 villages and four towns, CHĀNDŪR (population, 5,700), the head-quarters, MANGRŪL DASTGIR (6,588), TALEGAON DASHASAHASARA (6,220), and DATTAPUR (5,187). Talegaon was formerly the head-quarters of the *tāluk*, but Chāndūr was selected subsequently, as being on the railway. The demand for land revenue in 1903–4 was Rs. 3,80,000, and for cesses Rs. 29,000. The *tāluk* lies in the central valley of Berār and in the valley of the Wardhā river, which bounds it on the east; but the uniform fertility of these two tracts is varied by the aridity of a low range of rocky hills running from Chāndūr to Amraotī.

Chāndūr Town.—Head-quarters of the *tāluk* of the same name in Amraotī District, Berār, situated in 21° 49′ N. and 78° 2′ E. Population (1901), 5,700. The station on the Nāgpur branch of the Great Indian Peninsula Railway is 430 miles from Bombay. The town contains 5 cotton presses and 12 ginning factories.

Chāndūr Town.—Town in the Ellichpur *tāluk* of Amraotī District, Berār, situated in 21° 15′ N. and 77° 47′ E. Population (1901), 5,208. A weekly market, which yields considerable revenue, is held here and gives to the town the name Chāndūr Bāzār, by which it is usually known in order to distinguish it from the head-quarters of the Chāndūr *tāluk*.

Chāndvad.—*Tāluka* and town in Nāsik District, Bombay Presidency. *See* CHANDOR.

Changanācheri.—Head-quarters of the *tāluk* of the same name in Travancore State, Madras, situated in 9° 26′ N. and 76° 36′ E., 38 miles north of Quilon and about the same distance from Cochin, on rising ground washed by the eastern borders of the Kuttanād delta. Population (1901), 14,264, made up of 7,317 Hindus, 1,822 Musalmāns, and 5,125 Christians. It possesses the finest Syro-Roman church on the Malabar coast. A market, the best attended in all north Travancore, is held twice a week, at which the chief trade is in rice, pepper, dry ginger, areca-nuts, and piece-goods. The town was formerly the capital of the Tekkumkur principality; it was taken by Rāma Ayyan Dalawa, minister of Mahārājā Mārtānda Varma, in 1750, and annexed to Travancore.

Chāng Bhakār.—Tributary State in the Central Provinces, lying

between 23° 29′ and 23° 55′ N. and 81° 35′ and 82° 21′ E., with an area of 904 square miles. Till 1905 it was included in the Chotā Nāgpur States of Bengal. It is situated at the extreme western point of the Chotā Nāgpur Division of Bengal, projecting like a spur into the territory of the Central India State of Rewah, which bounds it on the north, west, and south. On the east it is bounded by Koreā State, of which it was formerly a dependency. The general aspect of Chāng Bhakār is that of a dense and tangled mass of hills, ravines, and plateaux, covered with *sāl* jungle (*Shorea robusta*) and dotted at long intervals with small villages. The most prominent of the hill ranges takes a serpentine sweep from the north-east to the south-west, and rises in occasional peaks to more than 3,000 feet above sea-level. The scenery of the interior of the country is for the most part monotonous. Hill after hill repeats the same general outline, and is clothed with the same sombre masses of *sāl* foliage. Portions, however, of both the northern and southern frontiers rise into bold cliffs above the undulating table-land of Rewah, and seem to present an almost inaccessible barrier to a hostile advance. The highest peak is Murergarh (3,027 feet), and 32 others rise to a height of over 2,000 feet. The only rivers are the Banās, Bapti, and Neur, which rise in the range of hills which separates Chāng Bhakār from Koreā. The Banās runs west into Rewah and the Neur takes a north-easterly course into the same State; but both are mere hill streams with rocky beds and frequent rapids. Tigers, bears, leopards, and many kinds of deer abound. The ravages of wild elephants were at one time so serious as to cause the entire abandonment of village sites till a large number were captured. Notwithstanding the strong natural defences which the nature of the country affords, the State suffered so much in former days from Marāthā and Pindāri inroads that the chief granted eight of his frontier villages to influential Rājputs of Rewah to secure their co-operation against the marauders. The chief is connected with the Koreā family, and when the State first came under the authority of the British Government in 1819, it was included in the agreement ratified with the chief of Koreā; in 1848 it was separately settled. The residence of the present chief, Bhaiya Mahābīr Singh, is at BHARATPUR. Extensive rock cut excavations exist near HARCHOKA, and there are remains of old temples at Chataonda and near Bhagwānpur.

The population increased from 18,526 in 1891 to 19,548 in 1901, but the density is only 22 persons to the square mile. There are altogether 117 villages. All but 32 of the inhabitants described themselves at the Census as Hindus, but they consist almost entirely of Dravidian aborigines, the most numerous tribes being the Gonds (6,000) and Hos (5,000). Most of them depend on agriculture for their livelihood; they are generally poor, and their crops barely suffice for the

actual requirements of their families. The State contains an enormous area of *sāl* forest; but little of the timber is of any size, and much has been destroyed, owing to a forest lease having been granted by the chief to some Bengali contractors on very inadequate terms and without any restriction as to the kind and size of trees to be felled. The country is very wild and no regular commerce is carried on, but the traders of Rewah from time to time import sugar, molasses, spices, salt, and cloth for local consumption. Two hill passes lead into Chāng Bhakār from the north—one near Harchoka and the other at Kāmārji. From these points two jungle roads meet at Berāsi in the centre of the State. Thence they diverge again, one leaving Chāng Bhakār by the main pass of Tiloti on the west, while the other turns to the south by way of Bargaon.

The relations of the chief with the British Government are regulated by a *sanad* granted in 1899, and reissued in 1905 with a few verbal changes due to the transfer of the State to the Central Provinces. Under this *sanad* the chief was formally recognized and permitted to administer his territory subject to prescribed conditions, and the tribute was fixed for a further period of twenty years, at the end of which it is liable to revision. The chief is under the general control of the Commissioner of Chhattīsgarh as regards all important matters of administration, including the settlement and collection of land revenue, the imposition of taxes, the administration of justice, arrangements connected with excise, salt, and opium, and disputes in which other States are concerned. He cannot levy import and export duties or transit dues, unless they are specially authorized by the Chief Commissioner; and he has no right to the produce of gold, silver, diamond, or coal mines in the State or to any minerals underground, which are the property of the British Government. He is permitted to levy rents and certain other customary dues from his subjects, and is empowered to pass sentences of imprisonment up to five years and of fine to the extent of Rs. 200; but sentences of imprisonment for more than two years and of fine exceeding Rs. 50 require the confirmation of the Commissioner. Heinous offences calling for heavier punishment are dealt with by the Political Agent, Chhattisgarh Feudatories, who exercises the powers of a District Magistrate and Assistant Sessions Judge; the Commissioner occupies the position of a Sessions Court in respect of such cases, while the functions of a High Court are performed by the Chief Commissioner.

The total revenue of the State in 1904-5 was Rs. 13,000, of which Rs. 1,770 was derived from land. The expenditure also amounted to Rs. 13,000, including Rs. 2,600 spent on administration and Rs. 2,200 on granary establishment. The tribute payable to the British Government is Rs. 387. The *zamindārs* hold immediately under the chief and pay annual rents, which in most cases are fixed per-

manently, besides certain cesses. The cultivators have no permanent rights in their land, but are allowed to hold it as long as they pay their rents and cesses regularly and render the customary service (*begār*) to the State. There is a small police force of 4 officers and 7 men; but in addition to the salaried members of this force there are village *chaukīdārs* and *goraits*, who are remunerated in kind or hold grants of land. The State contains a small jail with accommodation for 10 prisoners, in which prisoners sentenced to two years' imprisonment or less are confined; those incarcerated for longer periods are sent to a British jail. Education is very backward, only 47 of the whole population being able to read and write in 1901; one school has, however, been opened recently. The State contains no dispensary; 730 persons were successfully vaccinated in 1904-5.

Chāngla Gali.—Small hill station in the Abbottābād *tahsīl* of Hazāra District, North-West Frontier Province, situated in 34° 0′ N. and 73° 23′ E., on the road from Murree to Abbottābād. It is the head-quarters of the Northern Command School of Musketry.

Channagiri.—Eastern *tāluk* of Shimoga District, Mysore, lying between 13° 48′ and 14° 20′ N. and 75° 44′ and 76° 4′ E., with an area of 465 square miles. The population in 1901 was 81,453, compared with 74,218 in 1891. The *tāluk* contains one town, Channagiri (population, 4,775), the head-quarters; and 244 villages. The land revenue demand in 1903-4 was Rs. 1,45,000. The centre is occupied by the large SŪLEKERE tank, 40 miles round, which receives all the streams from the south, and from which the Haridrā issues to the north. The south and west are crossed by lines of hills. The rest of the *tāluk* is open country, with extensive grazing lands, which provide pasture for a superior type of cattle. In the north is a fertile tract containing much garden and sugar-cane cultivation. The western hills are included in the Shimoga auriferous band.

Channapatna Tāluk.—South-western *tāluk* of Bangalore District, Mysore, containing the sub-*tāluk* of Closepet, and lying between 12° 28′ and 12° 54′ N. and 77° 5′ and 77° 29′ E., with an area of 453 square miles. The population in 1901 was 114,627, compared with 99,294 in 1891. The *tāluk* contains two towns, CHANNAPATNA (population, 10,425), the head-quarters, and CLOSEPET (6,099); and 267 villages. The land revenue demand in 1903-4 was Rs. 1,43,000. The north and north-west are crossed by ranges of hills, and contain much waste land, often covered with scrub jungle. The south and south-west are open, with populous villages and large tanks. The Arkāvati in the east, and the Kanva in the west, both run from north to south. The former is fringed with mulberry gardens, watered by lifts from the stream; and the lower course of the latter runs through coco-nut gardens, the soil being favourable and water near the surface.

Channapatna Town.—Head-quarters of the *tāluk* of the same name in Bangalore District, Mysore, situated in 12° 40′ N. and 77° 12′ E., 35 miles by rail from Bangalore city. Population (1901), 10,425. The fort, now ruinous, was probably built about 1580 by Jagadeva Rāya, who made this the capital of territory yielding a revenue of 9 lakhs of pagodas, which had been bestowed on him by the Vijayanagar king for his defence of Penukonda in 1577. He was of a Telugu Banajiga family, which rose to power in the Bāramahāl in the fourteenth century. His successors ruled at Channapatna till 1630, when it was taken by Mysore. The town is north-east from the fort. It is celebrated for the manufacture of lacquered ware and toys, of fine steel wire for strings of musical instruments, and of glass bangles. It is the residence of a large number of Musalmāns of the Labbai and Daire sects, who trade with the west coast. The municipality dates from 1870. The receipts and expenditure during the ten years ending 1901 averaged Rs. 4,700 and Rs. 4,900. In 1903–4 the income was Rs. 5,500, chiefly from taxes; and the expenditure was Rs. 6,400.

Channarāyan Betta. Hill in the Chik-Ballāpur *tāluk* of Kolār District, Mysore, situated in 13° 23′ N. and 77° 44′ E.; one of the Nandidroog group, 4,762 feet high. The Penner rises on the west, and the Ponnaiyār on the east. There are traces of a fort on the top, and the forest on the slopes is 'reserved.' The temple of Channa Rāya is in a large cave on the west side.

Channarāyapatna.—Eastern *tāluk* of Hassan District, Mysore, lying between 12° 46′ and 13° 10′ N. and 76° 16′ and 76° 38′ E., with an area of 415 square miles. The population in 1901 was 90,950, compared with 78,211 in 1891. The *tāluk* contains two towns, Channarāyapatna (population, 3,222), the head-quarters, and SRAVANA BELGOLA (1,926); and 396 villages. The land revenue demand in 1903–4 was Rs. 1,97,000. The Hemāvati river is the boundary for a short distance on the south west, and its tributaries form several large tanks. A high ridge runs along the north, some small streams from which flow to the Shimsha. The country is generally open and undulating. The principal heights are the peaks at Sravana Belgola. There are large pasture grounds for cattle and sheep.

Chānsama.—Town in the Kadi *prānt*, Baroda State. *See* CHĀNASMA.

Chantapilli.—Village and lighthouse in Vizagapatam District, Madras. *See* SANTAPILLY.

Chāpra Subdivision.—Head-quarters subdivision of Sāran District, Bengal, occupying its south-east extremity, and lying between 25° 39′ and 26° 14′ N., and 84° 23′ and 85° 12′ E., with an area of 1,048 square miles. The subdivision is a fertile tract of rich alluvial soil, enclosed by the Gogra and Gandak rivers. The population was 972,718 in 1901, compared with 1,029,639 in 1891, the decrease being largely due to

severe epidemics of plague in 1900 and 1901. The density is 928 persons per square mile. There are two towns, CHĀPRA (population, 45,901), the head-quarters, and REVELGANJ (9,765); and 2,179 villages. SONPUR, at the confluence of the Ganges and Gandak, is an important railway centre and the scene of a great annual fair and bathing festival.

Chāpra Town.—Head-quarters of Sāran District, Bengal, situated in 25° 47′ N. and 84° 44′ E., on the north or left bank of the river Gogra, close to its junction with the Ganges. In 1901 the population was 45,901, or nearly 12,000 less than in 1891, the decrease being mainly due to a temporary exodus of the population which took place in consequence of an outbreak of plague just before the Census. Of the total, 34,862 are Hindus and 10,934 Musalmāns. The Gogra formerly flowed close by the town, but it has shifted its course a mile to the south; the river inundated the town in 1871 and again in 1890.

In the eighteenth century the French, Dutch, Portuguese, and English had factories at Chāpra; but a severe blow was dealt to the commercial prosperity of the place when it was deserted, first by the Ganges and later by the Gogra. The railway, however, now affords new facilities for trade. The principal imports are rice, kerosene oil, gunny-bags, Indian and European cotton piece-goods and twist, and salt; and the principal exports are saltpetre, opium, linseed, *gur* (raw sugar), and shellac. Chāpra is the head-quarters of a troop of the Bihār Light Horse, and of a detachment of the Bengal and North-Western Railway Volunteers.

The town has in recent years suffered severely from plague, which made its first appearance in March, 1900. It disappeared at the end of May, but again broke out in epidemic form later in the year; and during the months of October, 1900, to March, 1901, 1,984 deaths were reported. A serious panic ensued, trade was dislocated, and thousands of people left the town. In 1902 a less serious outbreak occurred, and again during the winter of 1902–3 there was another very severe epidemic, 2,138 deaths being recorded between November and February.

Chāpra was constituted a municipality in 1864. The income during the decade ending 1901–2 averaged Rs. 44,000, and the expenditure Rs. 41,000. In 1903–4 the income was Rs. 59,000, including Rs. 30,000 derived from a tax on houses and lands; and the expenditure was Rs. 50,000. The main drains are flushed and some of the public tanks filled by the flood-water of the Gogra, which is admitted through the Sāhibganj sluice. A fine *sarai* is under the management of the municipal commissioners, who also own two municipal markets and a dispensary. The District jail has accommodation for 305 prisoners; a large building is occupied by the Government English school; and there are also two private high schools. Chāpra is the head-quarters

of the German Evangelical Lutheran Mission, and a Roman Catholic mission has recently been started.

Charduār.—A Forest Reserve in Darrang District, Eastern Bengal and Assam, situated in 26° 55′ N. and 92° 45′ E., at the foot of the Akā Hills. The Reserve has an area of 121 square miles, and is best known as including an artificial plantation of the rubber tree (*Ficus elastica*), which in 1903–4 covered 2,872 acres. The plantation was first started in 1873 and cost more than 2 lakhs up to 1904. Tapping was first begun on a considerable scale in 1899, and the receipts under this head in 1903–4 amounted to Rs. 15,700.

Charl.—Village in Kāngra District, Punjab, situated in 32° 8′ N. and 76° 27′ E. Population (1901), 2,597. In 1854 the foundations of a temple with an inscribed pedestal (since lost) were discovered here. The inscription contained the formula of the Buddhist faith, and from the figures of seven boars carved on the front of the pedestal it appeared that the statue to which it belonged was that of the Tāntric goddess Vajra-varāhi.

[*Archaeological Survey Reports*, vol. v, p. 177.]

Chārikār.—Town in Afghānistān, situated in 35° 3′ N. and 69° 10′ E., at the mouth of the Ghorband valley, about 40 miles north of Kābul; 5,260 feet above the sea. Chārikār is the residence of the governor of Kohistān, a sub-province of Kābul. It is here that customs are levied on trade going to Turkistān, and the town contains about 900 houses of Tājiks. Iron ore is brought to Chārikār in great quantities from the Ghorband mines, and is worked up for the Kābul market. There are several mud forts in the town and more in the immediate neighbourhood. In 1839 Chārikār was the seat of a British Political Agent, Major Eldred Pottinger, and the station of Shāh Shujā's Gurkha regiment. In 1841 the Kohistānis attacked it and the greater part of the garrison was destroyed, Pottinger, one other British officer, and one Gurkha alone reaching Kābul, though many were afterwards saved on the advance of General Pollock's army.

Charkha.—Petty State in KĀTHIĀWĀR, Bombay.

Charkhārī State.—A *sanad* State in Central India, under the Bundelkhand Political Agency. The territory is much broken up, but the main portion lies between 25° 21′ and 25° 35′ N. and 79° 39′ and 79° 56′ E. The State includes nine separate tracts, comprising an area of about 745 square miles; eight of these are enclosed by the British District of Hamīrpur, while the ninth, which is the largest, lies on the Dhasān river, and is surrounded by portions of the Orchhā, Chhatarpur, and Bijāwar States. The only rivers of importance are the Ken and Dhāsan.

The State lies almost wholly in the alluvial tract which conceals the Bundelkhand gneiss on either side of the Ken river. Some of the

outlying portions, situated on the high land which intervenes between the Bindhāchal and Pannā ranges, border on the diamond-bearing tracts, a few not very productive mines being worked in the Rānīpur *pargana*. The climate, though hotter than that of Mālwā, is not oppressive. The annual rainfall averages 43 inches.

The formation of the State dates from 1765. Chhatarsāl, the PANNĀ chief, in 1731 divided his territory into several portions. One of these, with an annual income of 31 lakhs, with its capital at JAITPUR, was assigned to his third son, Jagat Rāj. At the death of Jagat Rāj in 1757, a dispute arose as to the succession. Kīrat Singh, the third son, who had been nominated as heir, predeceased his father, and his son Gumān Singh attempted to seize the State. Pahār Singh, another son of Jagat Rāj, however, forced Gumān Singh and his brother Khumān Singh to take refuge in the fort at Charkhārī. In 1764 Pahār Singh made terms and assigned territory to his nephews, giving Bāndā (now in the United Provinces) to Gumān Singh, and Charkhārī, then estimated to produce 9 lakhs of revenue, to Khumān Singh. Khumān Singh, the first Rājā of Charkhārī, died in 1782, and was succeeded by his son Bijai Bikramājīt Bahādur Singh, who was continually at feud with his relatives, especially with Arjun Singh of Bāndā, and was ultimately driven out of his State. In 1789 Bijai Bahādur Singh, in hopes of regaining his possessions, joined Alī Bahādur and Himmat Bahādur in their invasion of Bundelkhand, and, entering into engagements of fidelity and allegiance, received from Alī Bahādur in 1798 a *sanad* for Charkhārī fort and territory worth about 4 lakhs a year. In 1803, when the English entered Bundelkhand, Bijai Bahādur Singh was the first Bundelā chief to make terms; and a *sanad* confirming him in the possession of his land was granted in 1804, another *sanad* being given in 1811 after the settlement of a dispute regarding certain villages which had been omitted from the previous grant. He died in 1829, and was succeeded by his grandson Ratan Singh, son of his illegitimate son Ranjīt Singh, whose eventual succession had been recognized in 1822, when the chief's only legitimate son died. Ratan Singh was confirmed in power, and was admitted to all the rights granted by the *sanads* of 1804 and 1811. Ratan Singh was the ruler during the Mutiny and loyally supported the British Government by giving asylum to Mr. Carne, Assistant Collector of Mahobā, and helping in the management of neighbouring districts. He was rewarded with a land grant in perpetuity of the value of Rs. 20,000 a year, a *khilat*, an hereditary salute of 11 guns, and the privilege of adoption, which was subsequently confirmed by *sanad* in 1862. He died in 1860, and was succeeded by his son Jai Singh Deo, a minor. In 1874 this chief obtained administrative powers; but mismanagement necessitated the appointment of a British officer as Superintendent in 1879, and the withdrawal of the chief's

powers in 1880. Jai Singh died soon after; and his widow adopted the present chief, Malkhān Singh, a boy nine years old, who was recognized by the British Government, the State being put under the superintendence of a special Political officer. In 1886 the special officer was withdrawn and the State replaced under the Political Agent in Bundelkhand. The Mahārājā received full powers in 1894, and manages the State personally with the assistance of his father, Dīwān Jhujhār Singh Jū Deo, C.I.E., as minister. The ruler of the State bears the titles of His Highness and Mahārājādhirāj Sipāhdār-ul-mulk, and receives a salute of 11 guns. Malkhān Singh has been made a K.C.I.E.

The population of the State has been: (1881) 143,015, (1891) 143,108, and (1901) 123,254, giving a density of 166 persons per square mile. The population decreased by 13 per cent. during the last decade, owing to famine. Hindus number 118,007, or 95 per cent.; and Musalmāns, 4,842, or 4 per cent. The State contains one town, CHARKHĀRĪ (population, 11,718), the capital, and 504 villages. The prevalent forms of speech are Bundelkhandi and Banāpharī. The chief castes are Chamārs, 15,900; Brāhmans, 14,200; Ahīrs, 8,600; and Bundelā Thākurs, 8,300. Agriculture supports 43 per cent. and general labour 14 per cent. of the population. About 263 square miles, or 35 per cent. of the total area, are under cultivation, of which 22 square miles are irrigable. Of the uncultivated area, 337 square miles are capable of cultivation, 40 square miles are under forest, and the rest is waste. About 66 square miles, or 24 per cent. of the cropped area, are under *jowār*; 64 square miles, or 24 per cent., under wheat; 49 square miles, or 15 per cent., under gram, 27 square miles, or 10 per cent., under *kodon*; and 21 square miles, or 9 per cent., under cotton. In Rāmpur a few diamond mines are worked either by the State or by private individuals. Contractors are charged a royalty of 25 per cent. on the value of all stones found, the value of the stones being fixed by an appraiser.

The metalled road between Charkhāri and Mahobā has considerably increased local trade, and a European firm has established an agency in the town. The State has a postal department, which issues its own stamps. The head office is at Charkhārī, with branch offices at the *pargana* head-quarters. A British combined post and telegraph office is also located at Charkhārī town.

For administrative purposes the State is divided into four *parganas*, each under a *tahsīldār*: Bāwan-Chaurāsī, in which the town of Charkhārī stands; Isānagar, which lies to the west on the Dhasān river; Rāmpur; and Satwāra, with head-quarters at Chandla. The Mahārājā personally conducts the administration of the State. In criminal cases he exercises powers equal to a Sessions Court under the Indian Penal Code, all cases involving sentence of death, transportation,

or imprisonment for life being submitted to the Agent to the Governor-General for confirmation. The British judicial system was partially introduced in 1863, and more completely in 1880, when the financial system was also reorganized, and a regular budget system was introduced.

The total revenue of the State amounts to about 6 lakhs, of which 4 lakhs, or 66 per cent., is derived from land revenue. The chief heads of expenditure are general administration, including the chief's establishment (1·5 lakhs), military (Rs. 89,000), and charges in respect of collection of land revenue (Rs. 37,000). The incidence of the land revenue demand is Rs. 2 per acre of cultivated area. The rates are fixed in accordance with the quality of the soil, a higher rate being levied from irrigated land.

The currency was formerly of two kinds: the *Srinagari*, which was coined at Rāth (in Hamīrpur District), and *Rājā shāhi*, struck in the mint at Charkhārī. In 1864 British coin was introduced in making certain State payments, and finally in 1880 the British rupee was made the only legal tender.

The infantry force consists of regular infantry, numbering 138 men, and military police. The cavalry are divided into regulars, numbering 28 men, who form the chief's body-guard, and some irregulars. There are 24 serviceable guns and 90 gunners.

The police are of two classes: the Charkhārī town police, numbering 73, and the rural police, 320, the former being regularly engaged, the latter, *chaukīdārs* (village watchmen), taken chiefly from the semi-aboriginal Arakh, Khangār, and Basor castes. The jail is at Charkhārī town.

In 1901, 1·4 per cent. of the population (2·6 males and 0·1 females) were able to read and write. The State maintains six schools with 443 pupils, the chief institution being at Charkhārī town, where also a hospital and dispensary are kept up.

A plane-table survey of the State was begun for revenue purposes in 1881, and the present chief is endeavouring to complete it.

Charkhārī Town (known locally as Mahārājnagar).—Chief town of the State of the same name in Central India, situated in 25° 24′ N. and 79° 46′ E., 10 miles by metalled road from Mahobā station on the Jhānsi-Mānikpur section of the Great Indian Peninsula Railway. Population (1901), 11,718. The town is picturesquely situated at the foot of a hill called the Ranjīta Pahār, which rises abruptly from the plain to a height of 300 feet. Upon it stands the fort of Mangalgarh, reached by a flight of steps cut in the hill-side. Three large lakes lie at the foot of the hill, on one of which stands the State guesthouse. The town rose in importance after 1765, when Rājā Khumān Singh made it his capital; and since the opening of the railway it has become

a considerable trade centre. The chief imports are sugar, salt, cloth, and kerosene oil; the exports are grain, cotton, *til*, linseed, and *ghī*. A hospital and dispensary, schools for boys and girls, a British post and telegraph office, and a *dāk*-bungalow are situated in the town.

Charrā.—Village in the head-quarters subdivision of Mānbhūm District, Bengal, situated in 23° 23′ N. and 86° 25′ E., 4 miles north-east of Purūlia. Population (1901), 1,532. It contains some very old stone temples, called *deuls* or *debālayas*. There were originally seven temples, but five have fallen. Some of them were Jain or Buddhistic, and numerous votive *chaityas* with mutilated figures either of Buddha or one of the Jain hierarchs lie in the village; but the greater number of the remains of sculptures lying about are Brāhmanical. According to local tradition, these and some large tanks in the vicinity were constructed by Sārāks.

Chārsadda Tahsīl.—North-western *tahsīl* of Peshāwar District, North-West Frontier Province, lying between 34° 2′ and 34° 32′ N. and 71° 30′ and 71° 56′ E., with an area of 380 square miles. The population was 142,756 in 1901, and 132,917 in 1891. It contains three towns, CHARSADDA and PRĀNG (19,354), the head-quarters, and TANGI (9,095), with 168 villages. The land revenue and cesses amounted in 1903-4 to Rs. 3,60,000. The *tahsīl* consists of the *doāb* and the Hashtnagar *tappas* or circles. The former lies between the Adizai branch of the Kābul river and the Swāt, and is fertile, highly cultivated, with numerous villages, and better wooded than other parts of the District; even the uplands which run along the foot of the Mohmand hills for their whole length are now irrigated by private canals. It is mainly held by the Gigiāni clan and by Mohmands. The Hashtnagar *tappa* comprises a strip of plain country with a rich clay soil, which stretches 10 miles eastward of the Swāt, and from the Utmān Khel hills on the north to the Kābul river on the south. It is held by Muhammadzai Pathāns, and in it lies Chārsadda, the head-quarters of the *tahsīl*. This *tappa* is intersected by the Swāt River Canal.

Chārsadda Town.—Head-quarters of the *tahsīl* of the same name in Peshāwar District, North-West Frontier Province, situated in 34° 9′ N. and 71° 45′ E., on the left bank of the Swāt river, 16 miles north-east of Peshāwar city. Population (1901), including Prāng, 19,354. A good metalled road connects the town with Nahakki on the road from Peshāwar to Abāzai. By this route the distance to Peshāwar is 20 miles, and the road crosses five permanent bridges of boats. Chārsadda is a large and prosperous town, with a considerable trade, chiefly in agricultural produce, in the hands of enterprising Hindus, but Muhammadan agriculturists form the majority of the population. It has a dispensary and a vernacular middle school maintained by the District board.

Chārsadda is contiguous to the town of Prāng; and these two places were identified by General Cunningham with the ancient Pushkalāvati, capital of the region at the time of Alexander's invasion, and transliterated as Peukelaus or Peukelaotis by the Greek historians. Its chieftain (Astes), according to Arrian, was killed in defence of one of his strongholds after a prolonged siege by Hephaistion. Ptolemy fixes its site upon the eastern bank of the Suastene or Swāt. In the seventh century A.D. Hiuen Tsiang visited the city, which he describes as being 100 *li* (16⅔ miles) north-east of Peshāwar. A *stūpa*, erected over the spot where Buddha made an alms-offering of his eyes, formed the great attraction for the Buddhist pilgrim and his co-religionists. The city, however, had even then been abandoned as a political capital in favour of Purushapura, Parashāwara, or Peshāwar. It probably extended over a large area, and the entire neighbourhood is covered with vast ruins. Excavation was carried out in the neighbourhood of Chārsadda for about two months in the spring of 1902–3. Some interesting finds of coins and pottery ornaments, including an engraved amethyst, were made, and the remains of the ancient Bālā Hisār (Acropolis) were mapped.

Charthāwal.—Town in the District and *tahsīl* of Muzaffarnagar, United Provinces, situated in 29° 33′ N. and 77° 36′ E., 7 miles north-west of Muzaffarnagar town. Population (1901), 6,236. Under native rule it was the head-quarters of an *āmil*. It is now a small agricultural town, administered under Act XX of 1856, with an income of about Rs. 1,500.

Chāta.—*Tahsīl* and town in Muttra District, United Provinces. *See* CHHĀTA.

Chatarpur.—State and town in Central India. *See* CHHATARPUR.

Chatia.—Hill in the Jājpur subdivision of Cuttack District, Bengal, situated in 20° 39′ N. and 86° 3′ E., on the trunk road near the village of the same name. On the east side of the hill are the ruins of a fort called Amrāvati. The walls are made of laterite and are quadrangular, with one gate facing the east. The *zanāna* rooms are indicated by a high platform with broken pillars, and on a smaller platform stood a temple, now fallen. On one of the platforms are two well-carved life-size images of Indra and his wife Indrānī. According to local tradition, Amrāvati was one of the five *Katakas* or forts of the Kesari dynasty. On the west side of the hill is a small cave with a veranda, probably the work of Jain ascetics.

Chatrā.—Town in the head-quarters subdivision of Hazāribāgh District, Bengal, and one of the principal trade centres of the District, situated in 24° 12′ N. and 84° 53′ E., about 36 miles north-west of Hazāribāgh town. Population (1901), 10,599. On October 2, 1857, an engagement took place at Chatrā between H.M.'s 53rd Foot, sup-

ported by a detachment of Rattray's Sikhs, and the Rāmgarh Battalion, which had mutinied at Rānchī, and was marching to join the rebel *zamīndār* Kuar Singh at Bhojpur in Shāhābād. The mutineers, posted in great force on the brow of a hill, made a stubborn resistance, but were defeated with a loss of 40 men and all their supplies. Chatrā was constituted a municipality in 1869. The income during the decade ending 1901–2 averaged Rs. 6,000, and the expenditure Rs. 5,000. In 1903–4 the income was Rs. 6,000, mainly from a tax on persons (or property tax); and the expenditure was Rs. 5,000.

Chatrapur Subdivision.—Subdivision of Ganjām District, Madras, consisting of the GANJĀM and PURUSHOTTĀPUR *zamīndāri tahsīls*.

Chatrapur Village.– Head-quarters of the Collector, the Superintendent of police, and the Forest officer of Ganjām District, Madras, situated in 19° 22′ N. and 85° E., 13 miles north-east of Berhampur on the trunk road and on the East Coast Railway. It is an unimportant place with a population (1901) of only 4,210. GANJĀM was the head-quarters of the District until 1815; but in that year, owing to a deadly outbreak of fever, the Collector's office was moved to Berhampur. It remained there till 1835, when it was transferred to Chatrapur, which is prettily situated near the sea, and has a healthy climate. The school was endowed by a late Collector, Mr. A. P. Onslow, with some house property, including the house formerly occupied by the Collector. This building was afterwards purchased by Government, and a large modern residence has been erected on the site.

Chātsu (or Chāksu).—Head quarters of the *tahsīl* of the same name in the Sawai Jaipur *nizāmat* of the State of Jaipur, Rājputāna, situated in 26° 36′ N. and 75° 57′ E., about 2 miles from Chātsu station on the Jaipur-Sawai Mādhopur Railway and 25 miles south of Jaipur city. Population (1901), 4,902. Chātsu is an ancient town, and, according to local tradition, was for a time the residence of Vikramāditya, the legendary founder of the Samvat era (57 B.C.), and, being surrounded by a wall of copper, got the name of Tāmbavati Nagari. It is said to be called Chātsu after a Rājā of the Sesodia clan of Rājputs. The remains of several tanks have survived, but almost all the old temples were destroyed by the Muhammadans in the thirteenth and fourteenth centuries. A largely attended fair is held annually in March in honour of Sītalā Mātā, the goddess of small-pox. The State maintains a hospital with accommodation for 4 in-patients, and there are 5 elementary schools attended by 70 boys.

Chaube Jāgirs.– A collection of petty *sanad* States in Central India, under the Political Agent in Baghelkhand, lying between 25° 5′ and 25° 20′ N. and 80° 45′ and 80° 57′ E., and bounded on the north, east, and west by Bāndā District, and on the south by Baraundā. They comprise the five estates of PĀLDEO, PAHRĀ, TARAON, BHAISAUNDĀ,

and KĀMTA-RAJAULĀ, with an area of about 126 square miles. These estates lie partly in the diamond-bearing tract, and derive an income from the sale of the stones.

The population has been: (1881) 21,620, (1891) 23,300, and (1901) 20,711, giving a density of 165 persons per square mile. The *jāgīrs* contain 69 villages. Hindus number 19,556, or 94 per cent.; Animists, 812; and Musalmāns, 340.

The holders of these estates are Jijhotia Brāhmans and bear the appellation of Chaube. They originally held land at Dādrī, a village in Bundelkhand near the Nowgong cantonment. Their aptitude for military service brought them into notice, and they rose to high rank under Rājā Chhatarsāl of Pannā. The owners of the first four are descended from Rām Kishan, who was governor of the Kālinjar fort under Rājā Hirde Sāh of Pannā. During the disturbances which followed the invasion of Bundelkhand by Alī Bahādur, Nawāb of Bāndā, Rām Kishan seized the fort, and for ten years successfully resisted all attempts on the part of the Nawāb to oust him. At the time of the establishment of British supremacy, Kālinjar was held by the sons of Rām Kishan, of whom there were originally seven. Baldeo, the eldest, being dead, his son Daryau Singh was in command. Although these men were merely revolted servants of the Pannā chief, the British Government, in pursuance of their pacificatory policy, in 1812 confirmed Daryau Singh and his brothers in their possession of the fort and adjoining territory, on condition of allegiance. Daryau Singh, however, persisted in opposing the British authority and in secretly fomenting disturbances in the country. It was, therefore, determined to dispossess him, and the fort was assaulted by Colonel Martindell on January 16, 1812. Though the assault failed, Daryau Singh agreed to surrender on condition that other lands were assigned to his family in exchange for those they then held. These terms were acceded to; but the dissensions among the different members of the family were so violent as to necessitate the grant of a separate *sanad* to each member, as well as to Gopāl Lāl Kāyasth, who had been the family *vakīl*. Fresh dissensions led to a further settlement in 1817. In 1862 the *jāgīrdārs* received adoption *sanads*. It is a rule of succession among them that on the failure of heirs, real or adoptive, the *jāgīr* is divided among the surviving branches of the family. The original nine shares, created by the adjustment of 1817, were reduced to seven in 1839 and to five in 1864 by the operation of this rule, while one estate was confiscated in 1855 for the complicity of its holder in a murder.

Chaughāt.—Village in Malabar District, Madras. *See* CHOWGHĀT.

Chaukā.—A river of Oudh, being one of the branches into which the SĀRDĀ splits up in Kherī District. Its channel now contains little water, but has a long course through Kherī, Sītāpur, and Bāra Bankī,

joining the Gogra near Bahrāmghāt. The name is also applied to an old bed of the Sārdā which now joins that river in Pīlībhīt.

Chaul (*Cheul*).—Town in the Alībāg *tāluka* of Kolāba District, Bombay, situated in 18° 34′ N. and 72° 55′ E., on the coast about 30 miles south of Bombay, and on the right bank of the Kundalika river, or Roha creek. Population (1901), 6,517. Chaul is a place of great antiquity. Under the names of Champāvati and Revatikshetra, local Hindu traditions trace it to the times when Krishna reigned in Gujarāt. It seems probable that Chaul or Cheul is Ptolemy's (A.D. 150) headland and emporium of Symulla or Timulla; and it has a special interest, as Ptolemy mentions that he gained information about Western India from people who had come from Symulla to Alexandria. About a hundred years later (A.D. 247) it appears in the *Periplus* of the Erythraean Sea as Semulla, the first local mart south of Kalliena; and in 642 it is called Chimolo by Hiuen Tsiang. Chaul next appears under the names Saimur and Jaimur in the writings of the Arab travellers of the tenth, eleventh, and twelfth centuries. Early in the fourteenth century it is mentioned as one of the centres of Yādava power in the Konkan. The Russian traveller Athanasius Nikitin (1470) calls it Chivil. Thirty five years later (1505) the Portuguese first appeared at Chaul. It was in Chaul harbour that a naval fight took place between the Portuguese and the Musalmāns in 1508, in which the Portuguese were defeated. In 1516 the Portuguese established a factory here, and five years later Chaul was burnt by the Bijāpur fleet. The Gujarāt fleet and some Turkish ships attacked it in 1528, but they were repulsed by the Portuguese and Ahmadnagar squadron. In 1529 it was plundered by the Gujarāt troops. In 1594 the Portuguese gained a brilliant victory over the Ahmadnagar troops at Chaul, but in 1600 it passed to the Mughals. In 1583 the Dutch traveller Jean Hugues de Linschot described Chaul as a fortified city with a good harbour, and famous for trade. It was then a great centre of manufactures, with very deft and hard working craftsmen, who made a great number of chests and Chinese-like cabinets, very rich and well wrought, and beds and couches lacquered in all colours. There was also a great weaving industry in cotton and silk. As late as 1668 (Bruce's *Annals*) the weavers of Chaul are mentioned as making 5,000 pieces of 'taffaties' a year. In 1740 Chaul passed to the Marāthās. The insecurity of native rule at Chaul was of great advantage to Bombay. The silk-weavers and other skilled craftsmen of the town were induced to settle in Bombay, and their descendants of several castes, coppersmiths, weavers, and carpenters, are still known as Chaulis, thus preserving the name of their old home.

Upper and Lower Chaul, or, as they are more often called, Chaul and Revadanda, are among the prettiest and most interesting places in Kolāba District, and can be reached either by land from Alībāg or by

sea. The beginning of the seven miles of land journey from Alībāg is made troublesome by the Alībāg creek, but beyond the creek most of the way lies through shady palm groves. The Portuguese ruins in Revadanda or Lower Chaul, the Musalmān mosque, baths, and castle of Rājkot in Old or Upper Chaul, and the Buddhist caves in the south and south-west faces of the neighbouring hills, are the chief objects of interest. Chaul also contains a temple of Sri Hingalāj, in which are also images of Asāpuri and Chatursringi. The temple is said to be old. The town contains two schools.

Chaumu.—Chief town of an estate of the same name in the Sawai Jaipur *nizāmat* of the State of Jaipur, Rājputāna, situated in 27° 10′ N. and 75° 44′ E., about 20 miles north of Jaipur city. Population (1901), 9,300. The town, which is surrounded by a mud wall and ditch and contains a fort, is the residence of a Thākur, the premier noble of the State; he pays no tribute, but renders service with fifty horsemen. The present Thākur is a member of the State council. He maintains a small hospital with accommodation for 8 in-patients, and also an Anglo-vernacular school attended by 80 boys. The Jain community keep up a primary vernacular school attended by 25 boys, and there are 6 elementary indigenous schools, with about 180 pupils.

Chaungu.—North-western township of Sagaing District, Upper Burma, lying along the east bank of the Chindwin, between 21° 47′ and 22° 2′ N. and 95° 9′ and 95° 26′ E., with an area of 177 square miles. The population increased from 30,108 in 1891 to 33,134 in 1901, distributed in 88 villages, the head-quarters being at Chaungu (population, 8,545), a collection of villages on the Sagaing-Alon railway, 52 miles west of Sagaing town. Good rice lands extend from the township head-quarters westwards to the Chindwin, on the banks of which is Amyin, a large village with a bazar; but farther inland the country is very dry. There is no rising ground. The area cultivated in 1903–4 was 96 square miles, and the land revenue and *thathameda* amounted to Rs. 1,26,400.

Chaungzon.—Township of Amherst District, Lower Burma (formerly known as Bilugyun), lying between 16° 14′ and 16° 31′ N. and 97° 27′ and 97° 38′ E., and composed wholly of the island of BILUGYUN, with an area of 190 square miles. The density of population, 220 to the square mile, is high; and the area under cultivation, which includes practically the whole island with the exception of a strip of hill land running down its centre, is extensive. The population, which is largely Talaing, increased from 34,056 in 1891 to 41,880 in 1901, distributed in 68 villages, Chaungzon (population, 1,112), a village near the centre of the island, being the head-quarters. The area cultivated in 1903–4 was 115 square miles, paying Rs. 1,97,800 land revenue.

Chaur.—Peak in Sirmūr State, Punjab, situated in 30° 52′ N. and 77° 32′ E., and forming the highest summit among the mountains which

occupy the sub-Himālāyan tract, with an elevation of 11,982 feet above the sea. From its peculiar shape and great height it forms a conspicuous object in the landscape for many miles around, being easily recognized among the smaller ridges on every side. The Chaur presents a striking appearance from the plains of Sirhind; and the view from its summit embraces the vast lowland tract on the south, and a wide panorama of the snowy range to the northward. Though below the limit of perpetual snow, drifts remain in the shady chasms on its flanks throughout the summer months. A dense forest of *deodārs* and other conifers clothes the northern and north eastern declivities; and rhododendrons, ferns, and gentian grow in patches on the detritus of its granite slopes. There is an observatory on the mountain, 11,200 feet above sea-level.

Chaurāsi.—*Tāluka* in Surat District, Bombay. *See* CHORĀSI.

Chausā.—Village in the Buxar subdivision of Shāhābād District, Bengal, situated in 25° 31′ N. and 83° 54′ E., on the East Indian Railway, close to the east bank of the Karamnāsā river, 4 miles west of Buxar town. Population (1901), 1,108. It is noted as the scene of the defeat of the emperor Humāyūn by the Afghān Sher Shāh in June, 1539. The emperor with a few friends just managed to escape by crossing the Ganges, but 8,000 Mughal troops perished in attempting to follow him.

Chautang.—River in the Ambāla and Karnāl Districts of the Punjab, rising in the plains a few miles south of the SARASWATĪ, to which it runs parallel for a distance. Near Bālchhapar the two rivers apparently unite in the sands, but reappear in two distinct channels farther down, the Chautang running parallel to the Jumna, and then turning westward towards Hānsi and Hissār. The bed in this part of its course affords a channel for the Hissār branch of the Western Jumna Canal. Traces of the deserted waterway are visible as far as the GHAGGAR, which it formerly joined some miles below Bhatnair, after a course of about 260 miles: but the stream is now entirely diverted into the canal. In former days it lost itself in the sand, like others of the smaller cis-Sutlej rivers. Some authorities consider that the Chautang was originally an artificial channel. Cultivation extends along its banks in a few isolated patches, but for the most part a fringe of dense jungle lines its course.

Chāvakkād.—Village in Malabar District, Madras. *See* CHOWGHĀT.

Chawinda.—Village in the Zafarwāl *tahsīl* of Siālkot District, Punjab, situated in 32° 22′ N. and 74° 47′ E. Population (1901), 5,244. It is administered as a 'notified area.'

Cheduba Island (*Manaung*).—An island off the coast of Arakan, in Kyaukpyu District, Lower Burma, lying between 18° 40′ and 18° 56′ N. and 93° 28′ and 93° 46′ E., with an area of 220 square miles. The island is triangular in shape: its northern coast runs east and west, its

eastern north and south, while its outward side, turned towards the Bay of Bengal, follows the general trend of the coast, namely, north-west and south-east. It is well wooded, and possesses a good deal of undulating country and some hills which rise to a height of over 1,000 feet above the sea. In the extreme north-west corner is a so-called volcano which discharges inflammable gas. The island forms a township. Its population was 23,340 in 1891, and 26,899 in 1901. Rice and tobacco are the two main items of export. The name is said to be a corruption of *chār dhuba*, or 'four capes.' The town of Cheduba (population, 1,540), the township head-quarters, is on the eastern coast, near the point where the island approaches closest to the adjacent island of Ramree.

Cheduba Township (Burmese, *Manaung*).—South-western township of Kyaukpyu District, Lower Burma, consisting of CHEDUBA ISLAND, and lying between 18° 40′ and 18° 56′ N. and 93° 28′ and 93° 46′ E. Its head-quarters are at Cheduba (population, 1,540), in the north-east of the island. In 1901 the township contained 114 villages and 26,899 inhabitants (an increase of 1,559 since 1891). Its area is 220 square miles, and the density of population is 122 persons per square mile, which is higher than that of any other township in the District. The island has long been inhabited by people from Chittagong, and the name by which it is known to the British (said to be a corruption of *chār dhuba*, or 'four capes') is of Indian origin. About 40 square miles were cultivated in 1903–4, paying Rs. 42,000 land revenue.

Chenāb Colony.—A recently settled area in the Rechna Doāb, Punjab, lying between 30° 46′ and 31° 46′ N. and 72° 19′ and 73° 38′ E. The colony occupies most of the large tract of waste land owned by Government, called the Sandal Bār, which was situated mainly in the old District of Jhang, but also included portions of Montgomery, Gujrānwāla, and Lahore. It includes the whole of the new LYALLPUR DISTRICT, parts of the Chiniot and Jhang *tahsīls* of Jhang District, half of the Khāngāh Dogrān *tahsīl* of Gujrānwāla, and a few estates in the Sharakpur *tahsīl* of Lahore. In 1901 the colony had a population of 782,690, giving a density of 213·7 persons per square mile, on an area of 3,706 square miles; but since then the population has greatly increased, and the present area of the colony is 3,855 square miles. The colony contains the towns of LYALLPUR, the head-quarters, SĀNGLA, Chiniot Road, GOJRA, and Toba Tek Singh, with 1,418 estates or villages. This vast area was until 1892 sparsely inhabited by nomad pastoral tribes, such as Baloch, Siāls, Chhaddars, and Kharrals, who cannot have numbered more than 70,000 at the Census of 1891. In 1901 the Census showed that immigrants numbered 539,493, chiefly from the following Districts: Siālkot (103,000),

Amritsar (68,000), Jullundur (57,000), Gurdāspur (44,000), Hoshiārpur (35,000), Lahore (29,000), Gujrāt (25,000), Ludhiāna (18,000), Shāhpur (16,000), and Ferozepore (15,000). Cultivation was rendered possible only by the construction of the Chenāb Canal. As fast as the canal and its distributaries were constructed, the waste lands owned by Government were divided into squares, each 27·78 acres in area, and allotted to various classes of grantees. To capitalists were allotted areas of from 6 to 20 squares each, on payment of a *nazarāna* varying from Rs. 10 to Rs. 20 per acre according to the area of the grant, proprietary rights being eventually obtainable on a further payment of Rs. 20-10-0 per acre. Yeoman grants were made to agriculturists on similar terms, the area of a grant being usually four or five squares, and the *nazarāna* Rs. 6 per acre. The majority of the grants made were, however, 'peasant' grants of a half to three squares each. These were free grants, but to prevent alienation, carried no rights of proprietorship, a right of occupancy being acquired after five years' compliance with the terms of the grant. Under this system capitalists have acquired 122,000 acres, including 8,500 allotted in reward grants, and 24,500 sold by auction; yeomen (including military pensioners), 142,000 acres; and immigrant peasant grantees, 948,000 acres. In addition to these, 254,800 acres have been allotted to the nomads of the Sandal Bār, and 127,000 acres to *zamīndārs* of the surrounding Districts as compensatory grants. The camel-breeders of the Bār have also received 85,000 acres, on condition that they maintain camels for transport purposes, and are organized into the 59th, 60th, 61st, and 62nd Camel Corps. Four estates have been allotted to the 12th and 17th Cavalry, the 15th Lancers (Cureton's Multānis), and the 18th Tiwāna Lancers, respectively, as stud farms. Since its foundation the colony has enjoyed remarkable prosperity, but its success was at first jeopardized owing to the lack of means of transport to carry off its produce to profitable markets. The Wazīrābād Khānewāl branch of the North-Western Railway was accordingly constructed in 1890-1900. It traverses the whole length of the colony, within which lie 113 miles of its total length of 201 miles. Communication with Karāchi is thus afforded; but the Jech Doāb section from Sargodha is also being extended in the Jhelum Colony to Shorkot Road, a station on the Wazīrābād-Khānewāl line. It is also proposed to connect Shāhdara near Lahore with Sāngla; and to construct a chord-line, branching off from the Shāhdara-Sāngla line a short distance from Lahore, which will traverse the south-eastern portion of the colony to meet the Wazīrābād-Khānewāl line at Shorkot Road. Roads have been constructed in the colony to a length of 1,192 miles, of which at present only about 8 miles are metalled, though metalling is in progress on 52 miles more. For details as to the recent industrial development, as manifested in the growth of mills and factories, the

paragraph on Arts and Manufactures in the JHANG DISTRICT article and the article on SĀNGLA should be consulted.

Chenāb (the *Acesines* of the Greeks and *Asikni* of the Vedas).—A river in Kashmīr and the Punjab, being one of the 'five rivers' from which the Punjab derives its name. It rises in the Himālayan canton of Lāhul in the Punjab in two streams: the Chandra, which issues from a large snow-bed on the south-east side of the Bāra Lācha at a height of 16,221 feet; and the Bhāga, which rises on the north-west slopes of the pass. The Chandra, after flowing south-east for 55 miles, sweeps round the base of the mid-Himālayas and joins the Bhāga at Tandi, after a total course of 115 miles. The course of the Bhāga to Tandi is only 65 miles, its average fall being 125 feet per mile. The united stream, now known as the Chandra-Bhāga or Chenāb, flows through the Pāngi valley in Chamba State and then enters the Padar district of Kashmīr at an elevation of 6,000 feet. Thence for 180 miles it flows between steep cliffs of the high mountains, and then for 25 miles through the lower hills to Akhnūr, where it becomes navigable. There are three remarkable bends in the Chenāb. Where it reaches Kishtwār from a north-west course it suddenly twists due south; at Jangalwār it tacks from south to west; and at Arnas it leaves its westerly course and flows due south past Riāsi to Akhnūr. At each of these turns the Chenāb is joined by a stream of considerable size, and at every change of course the river seems to cut through the mountain range along which it had been flowing.

The chief tributaries in its passage through Kishtwār, Bhadrawār, and Jammu are the Uniar and Shudi, and the Bhutna and Māru Wardwan rivers. Between Kishtwār and Akhnūr it receives the waters of the Golan Lar and Lidar Kol, and the Bichlari and Ans, and between Riāsi and the western boundary of Jammu it is joined by the Tāwi. There are several bridges, two of which on the routes from Jammu to Kashmīr, and from Kashmir to Kishtwār respectively, are of a superior description. The rest are of the primitive *jhūla* type—three ropes stretched across the stream in the form of a triangle.

The Chenāb re-enters the Punjab at Khairi Rīhāl in Siālkot District. The Tāwi joins it almost at once, and the first place of importance in British territory is Wazīrābād, where the Alexandra Bridge carries the North-Western Railway across the river. Throughout its course in the plains the river flows in a wide and shifting bed of sand. A few miles south-west of Wazīrābād the main branch of the LOWER CHENĀB CANAL takes off at Khānki; and thence the river flows on greatly diminished in bulk, dividing the Chaj Doāb on the west from the Rechna Doāb on the east until the Jhelum joins it in Jhang District at Trimmu. Thence the two rivers flow under the name of the Chenāb,

till joined by the Rāvi near Sidhu and by the Sutlej at Madwāla. The North-Western Railway crosses it again at Sher Shāh. Thence the united stream flows on under the name of the PANJNAD, to join the Indus at Mithankot. Small boats can navigate the Chenāb in the plains all the year round, but there is little traffic above Chiniot.

There is evidence to show that the Chenāb flowed to the east of Multān as late as A. D. 1245. The Beās then occupied its old bed passing Dipālpur; and the Jhelum, Chenāb, and Rāvi met north-east of Multān, and flowing to the east of that city joined the Beās 28 miles south of it and east of Uch. Thus Multān and Uch both lay in the Sind-Sāgar Doāb. By 1397 the Chenāb had altered its course westward and was flowing to the west of Multān, as it still does. The part of the river which divides the modern District of Gujrat from Gujrānwāla was known to the Muhammadan historians as the Sūdharā (SODHRA), from the town of that name on its left bank.

Chenāb Canal, Lower.—A perennial canal in the Punjab, taking off from the left bank of the Chenāb river and watering the tract between it and the Rāvi. The greater part of this area was before the introduction of irrigation a desolate region, unpeopled except for a race of pastoral nomads known as Janghs. The land was for the most part Government waste, and was thus adapted for colonization on a scale hitherto untried in the history of India, if not of the world. The original work was designed as a small inundation canal and opened as such in 1887, but in 1889 it was decided to convert it into a perennial canal of the first magnitude. The head-works of the canal are at Khānki, a village in Gujrānwāla District, 8 miles below Wazirabad. Here there is a weir across the river, by which the supply to the canal is regulated and controlled. The main line of the canal has a bed width of 250 feet, and has been run with a depth of about 11 feet and a discharge of 11,000 cubic feet per second, or about six times the ordinary flow of the Thames at Teddington. This weir was commenced in 1890 and completed in 1892. The largest branch of the canal, the Gugera, carrying about one-half of the total supply, takes off from the left bank of the main line at the 28th mile. It has a length of 55 miles and then bifurcates into two subsidiary branches, the Gugera Lower and the Buralla, with lengths of 77 and 46 miles respectively. On the right bank, not far from the same off-take, is the Kot Nikka branch with a length of 18 miles. The extreme length of the main line is 40 miles, and it then divides into the Jhang, Rakh, and Miān Alī branches. The Jhang is the second largest branch of the system, and carries about 3,000 cubic feet per second. Its length is about 62 miles, before it bifurcates into the Jhang Lower (38 miles) and the Bhowāna (7½ miles long). The lengths of the Rakh and Miān Alī are 55 and 27 miles respectively. The total

length of the main channels is 426 miles. For the distribution of the water-supply from the branches to the watercourses which directly irrigate the land there were, at the end of 1903–4, 2,323 miles of distributaries; and for the villages colonized by Government there had been constructed about 11,000 miles of watercourses. The total area commanded by the canal at the end of 1903–4 was 5,255 square miles in Gujrānwāla, Lahore, Jhang, and Montgomery Districts, of which 3,098 square miles were irrigated, an area which is capable of substantial increase. The total area of Government waste in the Doāb is about 3,817 square miles, of which 2,827 square miles of land commanded by the canal had been allotted by the end of 1903–4. The grantees are divided into three classes –capitalists, yeomen, and peasants; the greater part of the land has been distributed to peasants, who are by far the most satisfactory tenants. For the purpose of allotment the whole of the Government waste has been divided into squares, the side of each square being 1,100 feet and the area about 28 acres. A peasant's grant consists of from one-half to three squares, a yeoman's of four or five, and a capitalist's of any number from five to twenty or more; and each settler is practically guaranteed water for the annual irrigation of a certain percentage of his holding. The Government retains the proprietary rights in the land, and the colonists are its tenants, the peasants for a term of years, the yeomen with right of continued occupancy so long as they pay their assessment, while the capitalists have also the right to purchase proprietary rights in their tenancy after the lapse of a certain period. There are also tenures which carry the liability to provide a certain number of camels for military service. For the purpose of distributing the land and of settling the colonists in villages, a special colonization officer has been appointed with head-quarters at Lyallpur. There were 1,423 villages in 1903–4, the average size being about 50 squares or 1,400 acres. The population of the colony at the Census of 1901 was 782,690, and may ultimately reach two and a half millions. A railway for the transport of produce has been constructed, running the whole length of the Doāb from Wazīrābād to Khānewāl, and several feeder-lines are under consideration. The capital cost of the canal up to the end of 1903–4 was about 280 lakhs. The canal earned a large revenue even while under construction, while the profits in 1903–4 amounted to 24 per cent. on the capital invested. The gross and net revenue derived therefrom in that year amounted to about 84 and 66 lakhs respectively. By 1913 the net revenue is likely to be very considerably increased, and the interest on the capital invested may amount to 30 per cent., while the value of the crops raised in a year is estimated to rise to 650 lakhs. The canal has thus not only enormously relieved the pressure of population in the congested

Districts of the Punjab, but has proved a most remunerative investment, besides adding largely to the general wealth of the country. An extensive telegraph system runs from the head of the canal down its main line and branches, and along some of its larger distributaries, thus facilitating rapid regulation of supply.

Chenāb Inundation Canals.—A system of inundation canals in the Punjab, taking off from the left bank of the Chenāb below its confluence with the Rāvi, and irrigating part of the Multān and Shujābād *tahsīls* of Multān District. They were for the most part constructed by the Pathān rulers of Multān and Shujābād, and were once thirteen in number; but by amalgamation the heads in the river have been reduced to four, the Mattithal, Walī Muhammad, Sikandarābād, and Sikandarwāh. As the canal-irrigated land is much lower than the river level in July and August, the outer banks of the canals are made specially high and strong to keep the flood-waters from pouring over the cultivated land, and in certain lengths of the river embankments have been constructed. In this way there is a chain of protection about 80 miles long on the east bank of the river. The maximum discharge of the canals is 5,200 cubic feet per second; there are 252 miles of main canals and 46 miles of Government distributaries. Until recently water was taken from the main canals entirely by private watercourses, but the construction of properly aligned distributaries is now in progress. The system by which the cultivators, in lieu of paying for the water, provided labour for silt clearance has recently been abolished, and occupiers' rates imposed. No capital account is kept for these canals. The gross revenue for the three years ending 1903–4 averaged 3·3 lakhs yearly, and the net revenue Rs. 47,000. The average area irrigated for the six years ending 1903–4 was 214 square miles.

Chengalpat.—District, subdivision, *tāluk*, and town in Madras. *See* CHINGLEPUT.

Chennagiri.—*Tāluk* of Shimoga District, Mysore. *See* CHANNAGIRI.

Chera (or Kerala).—The name of one of the oldest kingdoms in Southern India. The exact locality is still a subject of dispute, but it is certain that it included the western coast of the Madras Presidency. It is doubtful whether the kingdom was simply synonymous with Kerala, which was the name of the whole western coast, including Travancore, or whether Chera was an older name for the kingdoms of Kerala and of the Kongu kings combined. If the latter, it embraced, besides the present Districts of Kanara and Malabar and the Native States of Cochin and Travancore, the Districts of Coimbatore and Salem, with parts of Mysore and the Nilgiris. In the earliest historical days, Chera, CHOLA, and PĀNDYA formed the three great southern kingdoms, the confines of which met, according to tradition, at a place

on the Cauvery river, 11 miles east of Karūr. The date of the origin of the Chera dynasty is unknown, but it was in existence early in the Christian era. It is mentioned in the edicts of Asoka and by Ptolemy. Towards the end of the ninth or beginning of the tenth century, the Chera country was overrun by the Cholas. Their dominion appears to have continued until the end of the eleventh century, when it was probably checked by the Hoysalas of Dorasamudra (Halebīd in Mysore), but they held the country till they were overthrown by the Muhammadans in A.D. 1310. The latter were shortly afterwards driven out by a Hindu confederation, headed by the rising chiefs of Vijayanagar, and for two centuries were held in check, while the Vijayanagar empire, which absorbed the ancient State of Chera, grew to its greatest height of prosperity and grandeur. In 1565 the Vijayanagar kingdom was destroyed by the Muhammadans; but the Chera country was probably held by the Naiks of Madura till the period when the whole of Southern India was devastated by the constant strife between the rising kings of Mysore, the Madura Naiks, and the Muhammadans. In 1640 the Chera country was captured by the armies of the Adil Shāhi dynasty of Bijāpur, and was seized by the Mysore king in 1652. Perpetual strife ensued, ending only on the downfall of Tipū Sultān and the capture of Seringapatam.

Cherāt.—Hill sanitarium and cantonment in the Naushahra *tahsīl* of Peshāwar District, North-West Frontier Province, situated in 33° 50′ N. and 71° 54′ E., on the west of the Khattak range, 30 miles south-east of Peshāwar. Cherāt, which is 4,500 feet above sea-level, was first used as a sanitarium for troops in 1861, and was declared a cantonment in 1886. A hospital, a church, and a few bungalows have been built. The station has a good water-supply, and is throughout the summer the head-quarters of the Peshāwar division command, and of one of the two British regiments stationed at Peshāwar. A detachment of the other British regiment is also sent here. The mean temperature in June is 82° at Cherāt, compared with 90° at Peshāwar, and the nights are bearable. The hill commands a view of the whole of the Peshāwar valley on one side, and on the other of a portion of the Khwarra valley in Peshāwar District, and of Kohāt District as far as the Indus. The population, according to the Census of March, 1901, was only 376 (no Europeans), but in the hot season the garrison sometimes numbers 1,000 men.

Cherial.—*Tāluk* in Nalgonda District, Hyderābād State, with an area of 647 square miles. Its population in 1901, including *jāgīrs*, was 104,142, compared with 89,868 in 1891. The *tāluk* contained 128 villages, of which 27 are *jāgīr*, and Cherial (population, 2,731) was its head-quarters. The land revenue in 1901 was 1·7 lakhs. Rice is extensively raised by tank irrigation. In 1905 a number of villages

were added to Cherial from the Vardannāpet *tāluk* of Warangal District, which was abolished, and Cherial was transferred to Nalgonda District. The present head-quarters are at Jangaon (population, 1,696), a station on the Nizām's State Railway.

Cherra.—Petty State in the Khāsi Hills, Assam. The population in 1901 was 8,155, and the gross revenue in 1903-4 Rs. 7,900. Coal and iron are found, but are not largely worked. Other products include potatoes and oranges, in which there is a considerable trade, cotton, millet, betel-nut, *pān*, chillies, ginger, and honey. The title to the Siemship of the State is disputed, and on the occasion of the appointment of a new Siem in 1901 there were serious riots.

Cherrapunji.—Village in the Khāsi Hills, Assam, situated in 25° 15′ N. and 91° 44′ E., on a plateau overlooking the plains of Sylhet, 4,455 feet above sea-level. Cherrapunji is famous as having the highest recorded rainfall of any place in Asia. The annual fall averages 458 inches, but in 1861 a total of 905 inches fell, of which 366 were received in the month of July. In 1876 nearly 41 inches of rain fell in 24 hours. The Khāsi Hills at this point rise straight from the plains, and the south-west monsoon blowing across the flooded tracts of Eastern Bengal and Sylhet is suddenly stopped by this barrier. The air, which is saturated with moisture, cools and is precipitated in the form of rain. The village is situated on a plateau overlooking the plains, bounded by gorges on either side, and is thus completely surrounded by cooling vapour. The administrative head-quarters of the Khāsi and Jaintiā Hills were originally fixed at this place, but they were transferred to Shillong in 1864. The remains of the bungalows, which were built of solid masonry, formed an interesting spectacle, but were much damaged by the earthquake of 1897. Cherrapunji contains a dispensary, an English middle school, and a branch of the Welsh Presbyterian Mission. Coal is found near the top of an isolated ridge, steeply scarped on every side and rising to about 300 feet above the level of the plateau. The seam lies in a horizontal position on a bed of limestone, and its outcrop, where not concealed by jungle or débris, forms a continuous ribbon, following the contours of the hill. The coal is of excellent quality, and is fit for use on steamers, but at present it is only worked in a desultory and unscientific manner by the Khāsi villagers. The total quantity in the field is estimated at more than a million tons.

Chetwai.—Village in the Ponnāni *tāluk* of Malabar District, Madras, situated in 10° 32′ N. and 76° 3′ E., in the *amsam* (parish) of Vadanapalli. Population (1901), 3,216. It was formerly the terminus of the line of backwater communication extending to Cochin and Travancore, but is of little importance now that communication by water has been opened up to Ponnāni. In 1717 the Dutch took Chetwai from the

Zamorin, built a fort, and made it the capital of their province of Pappinivattam. In 1776 the fort was captured by Haidar Alī. Chetwai passed into British possession in 1790 and was leased to the Cochin Rājā till 1805, when it came under the Company's direct administration. Only the foundations of the fort now remain.

Cheyūr.—Town in the Madurāntakam *tāluk* of Chingleput District, Madras, situated in 12° 21′ N. and 80° E., 13 miles south-east of Madurāntakam town. It is the chief place in the Cheyūr *zamīndāri* and a Union. Population (1901), 5,210. Cheyūr contains three temples, dedicated to Kailāsanāthar, Subrahmanya, and Vālmīkanāthar, in which are valuable inscriptions relating to the Chola dynasty. It also contains extensive salt-pans. A weekly fair is held every Thursday.

Chhabra District.—One of the Central India *parganas* of the State of Tonk, Rājputāna. It is for certain purposes included in the political charge of the Resident at Gwalior. It has an area of 312 square miles, and lies between 24° 28′ and 24° 53′ N. and 76° 43′ and 77° 5′ E., being bounded on the north by Gwalior and Kotah, on the west by Kotah, and on the south and east by Gwalior. It is in shape an irregular triangle, and consists of three natural divisions—*agwāra*, *munjwāra*, and *pīchwāra*—the first of which is flat and fertile, while the other two are crossed by a range of well-wooded hills. The principal rivers are the Pārbati and its tributary, the Andherī; neither actually enters the district, the former flowing along the entire eastern and northern borders, and the latter forming the western boundary for about 25 miles. The population in 1901 was 36,046, compared with 46,473 in 1891. There are 185 villages and one town, CHHABRA (population, 6,724). The principal castes are Chamārs, Dhākars, Brāhmans, and Dodhās, forming respectively 11, 9, 7, and 7 per cent. of the total. The Chhabra *pargana* is said to have been first colonized by the Khīchī Chauhān Rājputs, and in 1295 Gūgal Singh of this clan founded the fort of Gūgor, which was for a long time the chief town. Towards the end of the eighteenth century the district passed into the hands of Jaswant Rao Holkar, who in 1816 made it over to Amīr Khān, to whom its possession was guaranteed by the British Government in the treaty of 1817. Of the total area, about 245 square miles, or 78 per cent., are *khālsa*, paying revenue direct to the State, and the *khālsa* area available for cultivation is about 166 square miles. Of this, about 79 square miles, or 47 per cent., were cultivated in 1903–4, the irrigated area being 7 square miles. Of the cropped area, wheat occupied about 36 per cent., *jowār* 29, gram 8, maize 6, and poppy 5½ per cent. The revenue from all sources is about 1·4 lakhs, of which three-fourths is derived from the land. Oranges are a speciality of the place, and are exported in considerable quantities. The Bīna-Bāran branch of the Great Indian Peninsula Railway runs for about 22 miles through the

district, having two stations, one about a mile north of Chhabra town.

Chhabra Town.—Head-quarters of the *pargana* of the same name in the State of Tonk, Rājputāna (within the limits of the Central India Agency), situated in 24° 39′ N. and 76° 52′ E., on the right bank of a stream called the Retri, about 125 miles south-east of Tonk city, and one mile south of Chhabra station on the Bīna-Bāran branch of the Great Indian Peninsula Railway. Population (1901), 6,724. The town possesses a strong fort, said to have been built by the Khīchīs in the fifteenth century, a post and telegraph office, a small jail, a vernacular school, and a dispensary for out-patients.

Chhachhrauli.—Capital of the Kalsia State, Punjab, situated in 30° 15′ N. and 77° 25′ E. Population (1901), 5,520. The income of the municipality, wholly derived from octroi, was Rs. 2,769 in 1903–4, and the expenditure Rs. 1,170. The town possesses an Anglo-vernacular middle school and a dispensary.

Chhalāla.—Petty State in KĀTHIĀWĀR, Bombay.

Chhāliar. Petty State in REWĀ KĀNTHA, Bombay.

Chhapiā.—Village in the Utraulā *tahsīl* of Gondā District, United Provinces, situated in 26° 59′ N. and 82° 24′ E., on the Bengal and North-Western Railway. Population (1901), 732. The village, commonly known as Swāmi Nārāyan Chhapiā, to distinguish it from other places of the same name, is celebrated as the birthplace of Sahajānand, a religious reformer in the early part of the nineteenth century. He migrated to Gadhada in Gujarāt, and became a learned Sanskrit scholar and ascetic. He is now worshipped as an incarnation of Krishna under the name Swami Nārāyan. A large temple of stone and marble, which has been erected at considerable expense, contains relics of Sahajānand, besides images of various deities. It is adorned both inside and out with paintings. Two large fairs are held annually.

Chhaprauli.—Town in the Bāghpat *tahsīl* of Meerut District, United Provinces, situated in 29° 12′ N. and 77° 11′ E., 35 miles north-west of Meerut city. Population (1901), 7,058. It is said to have been founded by Jāts in the eighth century. In the eighteenth century the Jāts of Mirpur, who had been almost ruined by the incursions of the Sikhs, migrated here, and added to the population and prosperity of the town. There is a large colony of Jain Baniās, who are people of some wealth. The town is administered under Act XX of 1856, with an income of about Rs. 2,000. It is increasing in importance as a centre for the collection and export of wheat and sugar. There is a primary school.

Chhāta Tahsīl.—North-western *tahsīl* of Muttra District, United Provinces, conterminous with the *pargana* of the same name, lying between 27° 33′ and 27° 56′ N. and 77° 17′ and 77° 42′ E., with an area of 400 square miles. Population rose from 153,465 in 1891 to

173,756 in 1901. There are 158 villages and two towns, Kosī (population, 9,565) and CHHĀTA (8,287), the *tahsīl* head-quarters. The demand for land revenue in 1903–4 was Rs. 3,38,000, and for cesses Rs. 59,000. The density of population, 428 persons per square mile, is the lowest in the District. Up to 1894 the northern portion formed a separate *tahsīl* called Kosī. The *tahsīl* is bounded on the east by the Jumna, which is fringed with ravines and a sandy strip of land; but these are not so extensive as in the Muttra *tahsīl* to the south. A ridge of sand traverses the centre, and another narrow belt is found farther west, beyond which is a shallow depression not sufficiently marked to form a drainage channel. The western boundary is formed by the Bharatpur State, and in places low stone hills are found. In the north the wells are very deep and the water they contain is usually brackish. The autumn harvest is more important here than the spring harvest, and *jowār* is the most common staple. In 1903–4 the area under cultivation was 329 square miles, of which 113 were irrigated. The Agra Canal supplies a rather larger area than wells. A drain has recently been completed from a depression near Kosī to the Jumna.

Chhāta Town.—Head-quarters of the *tahsīl* of the same name in Muttra District, United Provinces, situated in 27° 44′ N. and 77° 31′ E., on the Agra-Delhi road. Population (1901), 8,287. The principal feature of the town is its large fort-like *sarai*, covering an area of 12 acres, with battlemented walls and bastions, and two lofty gateways of decorated stonework, dating from the time of Sher Shāh or Akbar. The interior is disfigured by a number of mean mud huts. During the Mutiny of 1857 the *sarai* was occupied by the rebels, who, however, had to blow one of the towers down before they could effect an entrance. The town is administered under Act XX of 1856, with an income of about Rs. 1,200. Trade is chiefly local. There is a primary school with about 80 pupils.

Chhātak.—Village in the Sunamganj subdivision of Sylhet District, Eastern Bengal and Assam, situated in 25° 2′ N. and 91° 40′ E., on the left bank of the Surma. The river is navigable by steamers up to this point all the year round, and there is a large export trade to Bengal in lime, potatoes, and oranges. A tall masonry obelisk, erected in memory of Mr. Inglis, who founded a large business in lime, stands on the summit of a low hill, from which a magnificent view is obtained over river, swamp, and forest to the blue line of the Khāsi Hills, which rise like a wall from the plain. This obelisk was cracked in three places by the earthquake of 1897, and the pieces were wrenched round in the same plane without being thrown down.

Chhatāri.—Town in the Khurja *tahsīl* of Bulandshahr District, United Provinces, situated in 28° 6′ N. and 78° 9′ E., 30 miles south of Bulandshahr town. Population (1901), 5,574. The town takes its

name from the Chhatardhārī clan of Mewātīs who founded it. It belongs to the estate of the same name founded by Mahmūd Alī Khān, a brother of Murād Alī Khān of PAHĀSŪ. The estate is at present under the Court of Wards, as the owner, Ahmad Saiyid Khān, is a minor. Chhatārī is administered under Act XX of 1856, with an income of about Rs. 800. There is a primary school with about 120 pupils.

Chhatarpur State.—A *sanad* State in Central India, under the Bundelkhand Agency, lying between 24° 21′ and 25° 15′ N. and 79° 34′ and 80° 8′ E., with an area of 1,118 square miles. It is bounded on the north by the Hamīrpur District of the United Provinces and part of the Charkhārī State: on the east by the Ken river, which separates it from the States of Ajaigarh and Pannā; on the west by portions of the Bijāwar and Charkhārī States: and on the south by the Bijāwar and Pannā States and the British District of Damoh in the Central Provinces The greater part of the State consists of a level plain with a mean elevation of 600 feet above the sea, covered with trees and watered by numerous tanks. The only important streams are the Ken, with its tributaries the Urmal and Kutrī, which flow during the greater part of the year.

The main portion of the State lies in the Bundelkhand gneiss area. The portion immediately surrounding the chief town, however, falls within the Jumna alluvial tract, while in the south-eastern part of the State, which is situated in the Pannā range, the Ken and its tributaries have cut deep gorges exposing the massive Vindhyan sandstones. The Rewah shales, which also occur, are a continuation of the diamond-bearing tract of Pannā, though there is no record of their ever having been searched for stones. The Lower Vindhyan strata, with outcrops of the Bijāwars at their base, and the Kaimur sandstones are also met with, the last yielding superb building material. The climate is temperate, and the annual rainfall averages 46 inches

The State of Chhatarpur was founded in the latter part of the eighteenth century by Kunwar Sone Sāh Ponwār or Pamār, a retainer of Rājā Hindupat of Pannā, out of territories belonging to that State. On Hindupat's death in 1777 his son Sarnat Singh was forced to leave the State, and retired to Rājnagar, near Chhatarpur. He died, leaving a minor son, Hīra Singh, whose guardian was Kunwar Sone Sāh Ponwār. Taking advantage of the youth of his master, Sone Sāh seized the *jāgīr* in 1785, to which he added much territory during the disturbed period of the Marāthā invasion. In 1800 he, together with the other Bundelkhand chiefs, became tributary to Alī Bahādur, the Nawāb of Bāndā. On the establishment of British supremacy in Bundelkhand, Sone Sāh received a *sanad* in 1806, by which certain lands he then held were secured to him, while others, including the

town of Chhatarpur, were reserved to the British. In 1808, however, these lands also were made over to him. Sone Sāh died in 1816, having divided his possessions among his five sons. Later a redistribution was made by which the share of Pratāp Singh, the eldest son, was considerably reduced. The British Government disapproved of this second partition as unjust to Pratāp Singh, and as opposed to its policy of maintaining the integrity of the Bundelkhand States; and it was ruled that on the death of his brothers their *jāgīrs* should revert to the State. Bakht Singh, the youngest brother, who had been unable to manage his estate, made it over to his brother Pratāp Singh, receiving in lieu a cash allowance of Rs. 2,250 a month. Included in his holding was a *muāfi* (or free grant) of three villages belonging to the Dikshit family of Bilherī, held under grants given by Rājā Hindupat. This *muāfi* is still held by the family as a guaranteed holding subordinate to the Chhatarpur Darbār, to whom the *muāfidār* is obliged to refer in all matters of internal administration. In 1827 the title of Rājā Bahādur was granted to the chief. Pratāp Singh died in 1854; and the Directors of the East India Company, rejecting his adoption of Jagat Rāj, grandson of Bakht Singh, held that owing to failure of direct heirs the State escheated to Government. In consideration, however, of the loyalty of the Chhatarpur chiefs, a fresh *sanad* was, as an act of grace and favour, granted to Jagat Rāj, and as he was only eight years old Pratāp Singh's second Rānī was appointed regent. She was at the head of the State during the Mutiny of 1857, and gave asylum to the refugees from Nowgong. In 1862 a *sanad* of adoption was granted to the chief. The following year the Rānī was removed from the regency for maladministration, and the State was placed under a European officer. In 1867 the chief received powers of administration, but died the next year, his son Vishvanāth Singh, the present chief, succeeding at the age of fourteen months. The State remained under European supervision until 1876, when the dowager Rānī was made regent, but misrule necessitated her removal from the position in 1878. Vishvanāth Singh commenced to administer his State in 1887, and received enhanced criminal powers in 1894, and the personal title of Mahārājā in 1895. The Chhatarpur chief is the head of the Bundelkhand Ponwārs or Pamārs, a local section of the great Agnikula clan which separated from the parent stock in the thirteenth century. The hereditary titles are His Highness and Rājā, and he receives a salute of 11 guns.

Many archaeological remains are met with in the State, the most important collection of buildings being at Khajrāho, where one of the finest groups of temples in Northern India is to be seen. At the old town of Mau, 10 miles west of Chhatarpur, once the seat of the Parihār Rājputs, there are numerous buildings. These, however, with the

exception of a few Chandel remains (including an undated inscription assigned to about 1150), are all in the eighteenth-century style and of little architectural merit, having been erected in the time of Mahārājā Chhatarsāl. Many fine tanks are attributed to the Chandels, of which the Jagat Sāgar at Mau, the Imlika Talao at Rājnagar, and the Jhinna Sāgar at Lauri are the largest. At Manyāgarh, on the west bank of the Ken, close to Rājgarh, 20 miles south-east of Chhatarpur town, are the remains of an old fort which was originally one of the Ath Kot, or 'eight strongholds,' for which Bundelkhand was famous. The ruins are now buried in jungle. The fort was probably called after Manya Devi, who, according to the bard Chand, was a tutelary deity of the Chandels.

The population at the last three enumerations was: (1881) 164,369, (1891) 174,148, and (1901) 156,139, giving a density of 140 persons per square mile. During the last decade there has been a decrease of 10 per cent., owing mainly to the famine of 1896-7. The State contains 421 villages, and one town, CHHATARPUR (population, 10,029), the capital. Hindus number 148,343, or 95 per cent.; Musalmāns, 5,379; and Animists, 1,651, mainly Gonds, who inhabit the Deora *tahsīl*. Bundelkhandī and its dialects Banāpharī and Khatola are the prevalent forms of speech. The most numerous castes are Chamārs, 13,300; Kāchhīs, 12,600; Kurmīs, 11,000; Ahīrs, 9,800; and Brāhmans, 7,300. Agriculture supports 39 per cent., general labour 15 per cent., and State service 7 per cent. of the population.

Of the total area of 1,118 square miles, 236 square miles, or 21 per cent., are under cultivation, of which 65 square miles are irrigated, chiefly from artificial tanks and wells. About 545 square miles of the uncultivated area are cultivable; 135 square miles, situated chiefly in the south of the State, are under forest; and the rest is waste. Of the cropped area, *kodon* occupies 80 square miles, or 34 per cent., *til* 50 square miles, barley 46, *sāmān* and *basara* 39, *jowār* 26, gram 15, wheat 10, and cotton 6 square miles. The agriculturists are drawn from all classes, Brāhmans, Thākurs, Lodhīs, Kurmīs, and Ahīrs predominating.

About 100 miles of metalled roads are maintained by the British Government, being portions of the Chhatarpur-Satnā, Chhatarpur-Bāndā, and Nowgong-Bāndā high roads, and part of a feeder-road from Mahobā to Chandla. Little trade is carried on except at the chief town. The principal exports are grain, oilseeds, and spices; the imports are piece-goods, grain, metals, and salt. A British combined post and telegraph office is maintained at Chhatarpur, and a branch post office at Rājnagar.

For administrative purposes the State is divided into four *tahsīls*, each under a *tahsīldār*, who is the magistrate and revenue officer of his

charge, the head-quarters being at Chhatarpur, Rājnagar, Laurī, and Deora. The chief has entire control in all administrative and civil judicial matters. In criminal cases he is specially empowered by a *sanad*, granted in 1894, to try heinous crimes, with the proviso that all sentences of death must be referred to the Agent to the Governor-General for confirmation, and a periodical report submitted to the Political Agent of all cases involving transportation or imprisonment for life. The British codes are followed generally in the criminal courts. For civil cases local rules have been drawn up.

The total normal revenue from all sources is 3·5 lakhs, of which 2·9 lakhs is derived from land revenue. The chief heads of expenditure are: Rs. 47,000 on the general administration, including the chief's establishment; Rs. 25,000 on the collection of land revenue; and Rs. 22,000 each on police, military, and public works.

No regular revenue settlement has been made. Most of the land is periodically leased out village by village to farmers, who are responsible for the revenue. The State has in such cases no direct concern with the cultivators, who make their own terms with the farmers, the Darbār, however, reserving the right to intervene in cases of oppression. The incidence of the land revenue demand is about Rs. 1–11–0 per acre of cultivated land, and 6 annas per acre on the total area. Rates are—for *mār* (black soil), Rs. 1–3 2 to Rs. 1–9–7; for *parwa* and *kābar* (light soils), R. 0–12 10 to Rs. 1 3–2 each; for *rānkar*, a stony soil, R. 0–9 7 to R. 1 per acre. Special rates, varying from 12 annas to Rs. 31, are levied on land growing betel-vines and sugar-cane.

In 1882 the British rupee was made legal tender, in place of the *Rājā shāhī* rupee struck at Chhatarpur, and other local currencies.

The army consists of 112 regular infantry and 30 regular cavalry, and 440 irregular troops, besides 40 gunners with 27 guns. A regular police system was introduced in 1863, and has recently been reorganized. The force includes 120 State police and 277 rural police. The jail is at Chhatarpur.

In 1901 only 1·6 per cent. (3 males and 0·1 females) of the population were able to read and write. A school was first started at Chhatarpur in 1865, and made a high school in 1884. Pupils are sent up for the Allahābād University examinations. There are 23 other schools for boys and two for girls, with a total of 765 pupils, of whom 44 are girls; the annual expenditure is Rs. 6,700. A hospital is maintained at Chhatarpur. Vaccination is regularly carried on and is becoming yearly more popular.

Chhatarpur Town.—Chief town of the State of the same name in Central India, situated in 24° 55′ N. and 79° 36′ E., at the junction of the roads from Bāndā to Saugor and Nowgong to Satnā, 34 miles distant by road from Harpālpur on the Jhānsi-Manikpur section of the

Great Indian Peninsula Railway, 15 miles from Nowgong cantonment, 86 miles from Satnā, and 78 miles from Bāndā. Population (1901), 10,029. It is named after Chhatarsāl of Pannā, by whom it was founded in 1707. Chhatarpur is a fine town, surrounded on three sides by a wall, and contains many well-built houses. The chief's palace is a large substantial building, standing in the centre of the city in a fine garden. Its appearance is enhanced by numerous monuments erected by Gosains, who settled here nearly two centuries ago under the protection of Rājā Pahār Singh of Pannā, and are said to have assisted Sone Sāh in acquiring Chhatarpur. Before the opening of railways had diverted traffic from the roads, Chhatarpur was a considerable trade centre, salt, sugar, soap, iron, and brassware being its chief articles of commerce. In the town are a dispensary, a high school, one other school for boys and two for girls, a school of art for the encouragement of local industries, two *sarais* for native travellers, an inspection bungalow belonging to the Government Public Works department, and a State guesthouse.

Chhattisgarh Division.—Eastern Division of the Central Provinces, lying between 19° 50′ and 23° 7′ N. and 80° 43′ and 83° 38′ E., with an area of 21,240 square miles. It consists of the plain forming the upper basin of the Mahānadī river, hemmed in by ranges of hills on the north, west, and south. The Division contains three Districts, as shown below:—

District	Area in square miles	Population, 1901.	Land revenue with cesses 1903-4, in thousands of rupees.
Drug	3,807	628,885	5,64
Raipur	9,831	1,096,858	6,88
Bilāspur	7,602	917,240	4,07
Total	21,240	2,642,983	26,59

Up to 1905, the Division also included SAMBALPUR DISTRICT, which was then transferred to Bengal. The District of Drug was constituted in 1906 from portions of the old Raipur and Bilāspur Districts, which were too large for effective management. The name Chhattisgarh, or 'thirty-six forts,' was formerly applied to the territories of the Haihaivansi dynasty of Ratanpur, which comprised the greater part of the present Districts of Drug, Raipur, and Bilāspur. Far removed from the routes of armies, and protected from invasion or disturbance by the precipitous ranges which fringe the plain on three sides, the Haihaivansi kingdom continued to enjoy a peaceful and uneventful existence until the middle of the eighteenth century; while the people, isolated and

almost barred from intercourse with the outside world, have developed or retained peculiarities of dress, manners, and language which distinguish them from the residents of adjoining tracts, to whom they are known as Chhattīsgarhis. The Chhattisgarhī dialect resembles the form of Hindī spoken in Oudh. The people are generally held to be characterized by a lack of intelligence, by backwardness in their methods of agriculture, and by a more primitive habit of life than their neighbours. The head-quarters of the Commissioner are at Raipur town. The population of the Division in 1881 was 2,495,655, and increased to 2,924,663 in 1891, or by 17 per cent. The Census of 1901 showed a decrease to 2,642,983, or by 10 per cent., the Chhattīsgarh plain having been visited by two severe famines during the previous decade. In 1901 Hindus constituted 90 per cent. of the total population and Animists 8 per cent., while there were only 30,000 Musalmāns, 1,100 Jains, and 5,800 Christians, of whom 400 were Europeans and Eurasians. The density of population is 124 persons per square mile, compared with 112 for British Districts of the Province. It contains 7 towns, including Drug, the head-quarters of the new Drug District, and 9,356 inhabited villages. The marked absence of towns is to be explained by the fact that the population is almost solely agricultural, and until within comparatively recent years there has been very little trade. Raipur (32,114) is the chief commercial centre of the Division, and the only town containing more than 20,000 inhabitants. On the outskirts of the plain and surrounding the British Districts are situated the territories of fourteen Feudatory States, whose administration is controlled by a Political Agent under the supervision of the Commissioner.

Chhibrāmau Tahsīl.— South central *tahsīl* of Farrukhābād District, United Provinces, comprising the *parganas* of Chhibrāmau and Tālgrām, and lying between 26° 58′ and 27° 14′ N. and 79° 23′ and 79° 47′ E., with an area of 240 square miles. It is bounded by the East Kālī Nadī and Ganges on the north, and by the Isan on the south. Population increased from 111,114 in 1891 to 126,705 in 1901. There are 240 villages and two towns: CHHIBRĀMAU (population, 6,526), the *tahsīl* head-quarters, and TĀLGRĀM (5,457). The demand for land revenue in 1903-4 was Rs. 1,90,000, and for cesses Rs. 32,000. The density of population, 528 persons per square mile, is almost the same as the District average. In the centre of the *tahsīl* there is a level stretch of fertile loam, crossed from north to south in the west by a ridge of sandy soil, and with sandy slopes approaching the alluvial soil on the banks of the rivers. The eastern portion is remarkable for the large area covered by swamps and lakes. The area under cultivation in 1903-4 was 160 square miles, of which 64 were irrigated. The Bewar branch of the Lower Ganges Canal supplies about 14 square

miles in the west of the *tahsīl*, and wells most of the remainder, but tanks or *jhīls* irrigate 4 or 5 square miles. In several villages *bhang* (Indian hemp) is cultivated.

Chhibrāmau Town.—Head-quarters of the *tahsīl* of the same name in Farrukhābād District, United Provinces, situated in 27° 9′ N. and 79° 31′ E. It lies on the grand trunk road, and is connected by an unmetalled road with Farrukhābād city. Population (1901), 6,526. The early history of the town is legendary, but by the time of Akbar it was the head-quarters of a *pargana*. Nawāb Muhammad Khān of Farrukhābād, early in the eighteenth century, founded a new quarter called Muhammadganj, with a fine *sarai* which was improved 100 years later by a British Collector. The town prospered by its situation on the grand trunk road. It is administered under Act XX of 1856, with an income of about Rs. 1,100. It contains a *tahsīlī* and dispensary. A market is held twice a week. The town school has 120 pupils, and two primary schools 57.

Chhindwāra District.—District in the Nerbudda Division of the Central Provinces, lying between 21° 28′ and 22° 49′ N. and 78° 10′ and 79° 24′ E., on the Sātpurā plateau, with an area of 4,631 square miles. It is bounded on the north by Hoshangābād and Narsinghpur; on the west by Betūl; on the east by Seonī; and on the south by Nāgpur, and along a small strip to the south-east by the Amraotī District of Berār. The District may be described as consisting of three steps or sections of different elevation ascending from the south. Most of the Sausar *tahsīl* lies below the Sātpurās and forms part of the Nāgpur plain, with an elevation of about 1,100 feet. North of this is a section of the regular Sātpurā plateau forming the *mālguzāri*[1] area of the Chhindwāra *tahsīl*, and lying at a general elevation of about 2,000 feet; while north again is a stretch of wild and mountainous country often rising to 3,000 feet above the sea, covered with forest, and divided into *jāgīrs* or hereditary estates of the old hill chieftains. The marked features of the hill system are the range which forms the southern edge of the Sātpurā plateau ascending sharply from the Nāgpur plain, and that which rises from the level of the plateau to the north and falls again to the Narbadā valley. A few peaks in the northern range rise to over 3,700 feet, and along its west extends a series of small plateaux separated by valleys and ravines. In the north-west the hills fall away in a strip of low-lying country, which in turn is flanked by the Mahādeo range of Hoshangābād. A small range of foot-hills also divides the south of the District from Nāgpur. The surface of the Sausar *tahsīl* is generally undulating, while that of the Chhindwāra *tahsīl* is broken by isolated flat-topped

Physical aspects.

[1] Land held on ordinary proprietary tenure, as distinct from the large impartible estates devolving by primogeniture, called in this District *jāgīrs*.

hillocks. The most level portions are the Chaurai tract bordering on Seonī, and the Saolī-Mohkher plain to the south-west of Chhindwāra town. Several tributaries of the Narbadā rise in the northern hills, but the drainage generally is to the south. The Kanhān river rises in the north-west of the District, and after traversing the Chhindwāra *tahsīl* for about 30 miles turns to the east to descend the *ghāts* (hill passes) and subsequently crosses the Sausar *tahsīl* into Nāgpur. The Pench also rises in the north-west, and after flowing east through the Chhindwāra *tahsīl* turns to the south and forms the boundary between Chhindwāra and Seonī, its course in the District being about 160 miles. The Pench subsequently falls into the Kanhān, which is itself a tributary of the Waingangā. The Kulbeherā in Chhindwāra and the Jām in Sausar are affluents of the Pench and Kanhān respectively.

The greater part of the District is covered with the Deccan trap or volcanic rock, in which fossiliferous inter-trappean strata are met with at various localities. There are, however, considerable expanses of metamorphic and Gondwāna rocks. The Upper Gondwānas occur in the hills abutting on Narsinghpur and Hoshangābād, while south of these the Lower Gondwāna or Motur group is found. A stretch of crystalline rock extends over the west of the Chhindwāra *tahsīl* and runs south-eastwards through the centre of Sausar. There are several coal-fields in the District.

The 'reserved' forests lie principally on the southern range of the Sātpurās and on an irregular line of hills in the west of the District, while the northern range is covered by private forest. Teak and *sāj* (*Terminalia tomentosa*) are the most important timber trees in the Government forests, while the *jāgīrs* contain some *sāl* (*Shorea robusta*). Among other trees may be mentioned *tinsā* (*Ougeinia dalbergioides*), *bījāsāl* (*Pterocarpus Marsupium*), *shīsham* (*Dalbergia Sissoo*), and *lendiā* (*Lagerstroemia parviflora*). Various climbers, such as *Millettia*, *Bauhinia*, *Spatholobus*, and *Porana*, occur; and the undergrowth includes species of *Grewia*, *Zizyphus*, *Phyllanthus*, and *Cleistanthus*. Among grasses may be mentioned *dūb* (*Cynodon dactylon*), *kusal* (*Pollinia argentea*), and *rūsa* (*Andropogon Schoenanthus*).

Game is by no means plentiful in the forests. Tigers are seldom met with, though leopards are more numerous and the true hunting leopard has been shot in Chhindwāra. A few wild buffalo and a fair number of bison are contained in the *jāgīrdāri* forests, and the *bārāsinghā* or swamp deer is found in the District. Chhindwāra is not a good District for game-birds as there are very few tanks; but fish are found in the rivers and large streams in considerable numbers, and the mahseer in the Pench afford excellent sport, some specimens reaching a weight of 40 lb.

The climate in most parts is cold and healthy, being probably the

most favourable in the Province. The heat is seldom severe, while the light rainfall makes the monsoon season pleasant. In the cold season the temperature frequently falls below freezing-point, but ice is not often seen. The variations of temperature in different parts of the District correspond to those of elevation, the Sausar *tahsīl* having the same hot climate as Nāgpur, while the highest range of the *jāgīrs* is as cool as Pachmarhī. The general health of the population is good, and epidemic disease is rare.

The annual rainfall at Chhindwāra averages 42 inches, that for Sausar being apparently somewhat less, if the returns are to be relied on.

History.

Deogarh, the head-quarters of the old Gond dynasty of Chhindwāra and Nagpur, is a village about 24 miles south-west of Chhindwāra, picturesquely situated on a crest of the hills. For a short period towards the end of its existence, the Deogarh kingdom became of such importance as to overshadow Mandlā and Chānda, and to take first place among the Gond States. Of its earlier history practically nothing is known, but here, as elsewhere, popular tradition tells of a Gaolī kingdom preceding the Gonds. The mythical Gond hero Jātba, who founded the dynasty, was born from a virgin under a bean plant, and was protected by a cobra, who came and spread its hood over him during the heat of the day, when his mother left him to go to her work When he grew up he became famous for his feats of strength, and entered the service of the twin Gaoli kings, Ransūr and Ghansur, whom he subsequently slew with a magic sword, and taking the kingdom in their stead became the first Gond ruler The forts of Patansaongi and Nagardhan below the *ghats* are attributed to him. From Jātba, whose date is absolutely uncertain, to Bakht Buland, at the end of the seventeenth century, tradition is almost silent. This prince went to Delhi and entered the service of Aurangzeb. He is supposed to have gained by his military achievements the favour of the emperor, by whom he was persuaded to become a Muhammadan. He was acknowledged as Rājā of Deogarh, and returned from Delhi bringing with him a number of artificers and husbandmen, both Hindu and Muhammadan. He enlarged his dominions at the expense of Chānda and Mandlā, and established many new towns and villages, also founding the city of Nāgpur. Bakht Buland's successor, Chānd Sultān, removed the capital to Nāgpur, which he made a walled town. The subsequent fall of the Gond dynasty and the acquisition of the Deogarh kingdom by Raghujī Bhonsla belong to the history of NĀGPUR. Chhindwāra became a part of the Marāthā kingdom; and during the latter period of the Bhonsla rule it suffered severely from rack-renting, and from the depredations of the Gond hill chiefs, who, as the Marāthā administration grew weaker,

came down from their mountain fortresses and plundered and harassed the country without restriction. When Appa Sāhib was being sent to Allahābād in custody after the battle of Sītābaldī in 1818, he escaped to the territories of these chiefs and was there joined by the Pindāri leader Chītū. The two were well received by the Gond *jāgīrdārs*, and gave some trouble before they were expelled and the country pacified. After the deposition of Appa Sāhib, Chhindwāra was for some years administered by a British Superintendent under the control of the Resident at Nāgpur. It finally lapsed to the British Government, with the rest of the Nāgpur territories, in 1853. Since the formation of the District, the Almod, Bariām Pagāra, and part of the Pachmarhī *jāgīr* have been transferred to Hoshangābād, the Adegaon estate to Seoni, and the Bordehī tract to Betūl.

Numerous remains of wells, tanks, and buildings at Deogarh show that the old Gond capital must have extended over a large area. The District is, however, singularly bare of notable buildings, even important shrines being represented only by a *chabūtra* or platform and not by a temple. The names of several hills, such as Haryāgarh and Garjūgarh, preserve the recollection of the troublous times when they were crowned with forts, but these have now entirely vanished.

Population.

The population of the District at the last three enumerations was as follows: (1881) 372,899, (1891) 407,494, and (1901) 407,927. The decade between 1881 and 1891 was prosperous and the population increased steadily, the lowest increment being in the *jāgīrs*. The last Census shows the total population as almost stationary; but there has been an increase of 3 per cent. in the *mālguzāri* portion of the Chhindwāra *tahsīl*, and a heavy decline of 11 per cent. in the *jāgīrs*. The District did not suffer so heavily as the rest of the Province in 1897, but was severely affected in 1900, and there was probably some immigration from the *jāgīrs* into the *mālguzāri* area in both years. The District has four towns—CHHINDWĀRA, the District head-quarters, PĀNDHURNA, MOHGAON, and SAUSAR—and 1,751 inhabited villages. The principal statistics of population in 1901 are shown below:—

Tahsīl.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Chhindwāra	3,528	1	1,368	286,779	81	− 0·1	5,473
Sausar	1,103	3	383	121,148	110	+ 0·6	3,632
District total	4,631	4	1,751	407,927	88	+ 0·1	9,105

There are considerable variations in density in different areas, and

the open part of the Sausar *tahsīl* is very thickly populated. The figures for religion show that 61½ per cent. of the population are Hindus, 35 per cent. Animists, and 3 per cent. Muhammadans. The majority of the Gonds and Korkūs are still returned as professing their tribal religion. Of the Muhammadans, 3,645 live in towns. About 45 per cent. of the population speak the Bundelī dialect of Western Hindī, 19 per cent. Marāthī, and 25½ per cent. Gondī. About two-thirds of the Gonds are returned as speaking their own language. Most of the Marāthī speakers live in the Sausar *tahsīl*, which adjoins Nāgpur and contains many Marāthā immigrants.

Brāhmans (8,000) are the principal landowning caste, including a few Marwāri or Pallīwāl Brāhmans who are professional money-lenders. The chief agricultural castes are Kurmīs (8,000) and Kunbīs (21,000), Bhoyars (17,000), Lodhīs (9,000), Kirārs (8,000), and Raghuvansis (4,000). The Kurmīs are wheat-growers and are found in the Chaurai tract, while the Kunbīs raise the cotton and *jowār* of the Sausar *tahsīl*. The Lodhīs and Raghuvansis, though found only in small numbers, are fairly large landowners, and both are good cultivators. The Bhoyars are found in the Pandhurnā valley and along the head of the *ghāts* between Sausar and Chhindwāra. The Ahīrs (33,000) are professional cattle breeders and landowners. The Gonds (137,000), the old owners of the soil, constitute a third of the population, and all the *jāgīrdārs* with two exceptions are Rāj Gonds. They reside principally in the northern hills and forests, but also in the open country. At the time of the wheat harvest they go down in large numbers to the Narbadā valley, and obtain sufficient grain as wages to support them for a couple of months. Korkus number nearly 19,000, or 4½ per cent. of the population. They include the subdivision of Mowāsis, who consider themselves superior to the ordinary Korkū. The Korkūs are even poorer than the Gonds: they are not landholders at all, and where the two tribes are found together the Gonds have possession of the open country and the Korkūs are relegated to the most jungly villages. About 72 per cent. of the District population are shown as supported by agriculture.

Christians number 474, including 455 natives, of whom the majority are converts of the Swedish Lutheran Mission at Chhindwāra. This body supports a large orphanage and several schools, and has also a village and some out-stations.

Agriculture.

The soils vary from a deep black loam 10 feet or more in depth to a thin red or yellow soil only an inch or two thick. Good black or brown soil covers about 23 per cent. of the cultivated area, and inferior gravelly or sandy soil the rest. In the Sausar *tahsīl* the shallow brown soil, when manured, produces excellent crops of cotton and *jowār*. Where the country is undulating,

rich black clay is found in the depressions, brown loam on the slopes, and a thin covering of stony red earth on the ridges, while the open plains of Chaurai and Mohkher consist of stretches of deep black soil. The band of crystalline rock running through the east of Chhindwāra produces the yellow soil which is suitable for rice, and a little of this is also found in Sausar. In the *jāgīrs* the land is generally of the poorest quality.

An area of 1,597 square miles is comprised in the ten *jāgīrdāri* estates, 92 square miles are held wholly or partially free of revenue, 5,000 acres have been sold outright under the Waste Land Rules, and 55 square miles have been disforested and are being settled on the *ryotwāri* tenure. The remainder of the village area is held on the ordinary *mālguzāri* tenure. The following table gives the principal statistics of cultivation in 1903-4, areas being in square miles:—

Tahsil.	Total	Cultivated.	Irrigated.	Cultivable waste.	Forests.
Chhindwāra . .	3,528	1,267	8	1,106	381
Sausar . . .	1,103	437	2	177	331
Total	4,631	1,704	10	1,283	712

There is still considerable room for extension of cultivation, but the land remaining to be brought under the plough is usually of very poor quality. At present nearly 25 per cent. of the occupied area is under old or new fallow, but this proportion is abnormal, the usual figure being about 19 per cent. Resting fallows are frequently given in every alternate year on the poorest soils. The principal crops now are wheat, covering 308 square miles, and *jowār*, which is grown by itself or mixed with the pulse *arhar* (*Cajanus indicus*), and occupies 280 square miles. Next in importance are the small millets *kodon* and *kutkī* with an area of 199 square miles; and the oilseeds *til* and *jagnī*, 185 square miles. A noticeable feature in the returns of the past few years is the great increase in the popularity of *jowār*, which has partially replaced wheat as the staple food-grain of the District. Sugar-cane was formerly an important product, but in 1903-4 only 1,600 acres were planted with it.

During the thirty years up to 1893 the cropped area increased by 43 per cent., while in the next ten years a further rise of 11 per cent. took place. The area under the valuable cotton crop expanded from 55 square miles in 1894 to 143 in 1904. *San*-hemp (*Crotalaria juncea*), which has recently become a very profitable crop, covers 10,000 acres. Only Rs. 8,000 was advanced under the Land Improvement Loans Act during the ten years ending 1904, and 1·71 lakhs under the Agriculturists' Loans Act.

Cattle are bred principally in the Khamārpāni tract in the east of the District, and on the banks of the Kanhān river near Bhatoriā. The Khamārpāni breed are large and handsome animals, with high foreheads, white in colour, and good trotters. They are bred by professional herdsmen, and great care is exercised in the selection of bulls, which cost about Rs. 150 apiece. The bullocks are used for cultivation in heavy black soil, and also for drawing the light *chhakrās* or travelling carts. The Kanhān river oxen are smaller, and of different colours—red, black, and speckled. They are used generally for cultivation in hilly and stony land. The trotting cattle kept by the richer landholders are bought as yearlings, and kept carefully until they are two or three years old, being allowed to graze freely in the standing crops, and fed liberally when these are not on the ground. A good pair will cover 50 miles in ten hours, and races are held annually at Taegaon Khairī near Borgaon. Buffaloes are bred to a small extent, but only for the sake of their milk, and are not used for cultivation. The young bulls are generally neglected, and allowed to die. Goats and sheep are bred by Gādris and also by Ahīrs and Khatīks, for food, for their wool, and for the supply of manure. The males only are eaten as food, and many castes will not eat sheep at all. They are very highly prized for manure in the Sausar *tahsīl*, where they are folded on the cotton-fields.

The only crops that are irrigated are vegetables, spices, and sugar-cane, and very rarely wheat. Such irrigation as exists is carried on from wells, or in rare cases from water-holes dug at the foot of a bank over-hanging a stream. There are more than 4,000 temporary and 400 masonry wells, which irrigate about 7,000 acres. Some projects for tanks have been prepared by the Irrigation department.

Forests.

The Government forests cover an area of 712 square miles, of which 663 are 'reserved,' and the remainder has been assigned for disforestation and colonization. Pure teak forest is found only in a few small and scattered patches, but teak mixed with inferior trees occurs on the hills of the Silewāni and Ambāra ranges. Bamboos are found in these forests and their reproduction is good. The greater part of the forests consists of *sāj* (*Terminalia tomentosa*) mixed with other trees, while a considerable area contains inferior species, in which reproduction is very poor, and no protection is attempted. The propagation of the lac insect has been taken in hand as a forest industry and is proceeding successfully. The extraction of *rūsa* oil from the grass called *tikāri* (*Andropogon Schoenanthus*) for purposes of export has also commenced. The forest revenue in 1903–4 amounted to Rs. 70,000, of which Rs. 19,000 was realized from sales of timber, Rs. 24,000 from grazing, and Rs. 8,000 from minor produce. The *jāgīrdāri* forests do not contain much valuable timber.

The Pench and Kanhān coal-fields lie from east to west in the hill

country about 12 miles north of Chhindwāra town. Mining leases have been granted and an extension of the railway to the local fields has been completed. An analysis of the coal shows 62 per cent. of fixed carbon, 28 per cent. of volatile matter, and 10·4 per cent. of ash; and the prospects of the field are very promising. Manganese has been found in several villages in the Sausar *tahsīl* on the hills bordering Kātol, and also below the *ghāts*; and prospecting and mining leases have been taken out.

Trade and communications.

There are colonies of cotton weavers in all the towns and several of the larger villages, who produce moderately fine cloth. At Norhiā Karwāl, near Chhindwāra town, head-cloths are woven from threads of counts as fine as 100's. Mill-spun thread is now solely used, with the exception that the Gādris or shepherd caste spin a stout blue and white thread from which sacks are made for holding grain. *Tasar* silk is produced and woven locally to a small extent. The Gādris also weave blankets in different colours, the wool being dyed with lac and imported dyes. *Sān*-hemp is grown principally for export, but hemp matting is also woven by Banjārās for local use. Ropes made of the grass called *kāmi* or *boyā* are largely used by all classes for household purposes. Brass utensils are made at Chhindwāra and Lodhīkhedā; but the industry is not flourishing, and the Chhindwāra brass-workers have taken up the manufacture of zinc ornaments as a subsidiary occupation. The largest market in the District is that of Rāmākonā on the Chhindwāra-Nāgpur road, 50 miles from Nāgpur, where as many as 3,000 carts are collected on a bazar day in the season. Lodhīkhedā and Pāndhurnā are the markets next in importance, and after them Palatwāda, Mordongrī, and Mohkher. A cotton-ginning factory at Mohgaon has been working since 1892, with a capital of Rs. 50,000. Two gins were opened at Pāndhurnā in 1903, and a cotton-press is being constructed.

Wheat, cotton, oilseeds, and *san*-hemp are the principal exports of agricultural produce. *Gur* (unrefined sugar) is sent to Berār and Nāgpur, but in decreasing quantities. Potatoes and ginger are supplied to Nāgpur and Seonī, and timber, minor forest produce, hides and horns, and manganese are other articles of export. Salt comes from Gujarāt through Pipariā to Chhindwāra, and from Bombay through Nāgpur to Sausar. Mauritius sugar is generally used. English and Indian mill-woven cotton cloths are worn in large villages and towns, and hand-woven cloths in rural tracts. Iron, brass, and other metals and hardware are imported from Bombay through Nāgpur. The trade of the District is conducted by Mārwāri Baniās and Cutchī Muhammadans. Telis act as local carriers, purchasing grain and other goods and taking them to Rāmākonā market for sale to the Nāgpur agents.

The District has till recently not been touched by the railway; but

a branch of the Sātpurā extension of the Bengal-Nāgpur line through Seonī to Chhindwāra town was opened in 1905, with a length of 29 miles and three stations in the District. A short extension of the line to the coal-fields north of Chhindwāra has also been constructed. Metalled roads lead from Chhindwāra to Nāgpur through Sausar, a distance of 80 miles, and to Seonī, 43 miles. Other roads are those to Piparià station on the Great Indian Peninsula Railway, to Narsinghpur, and to Multai in Betūl District. The principal outlet for trade is the Nāgpur road, and next to this the Jubbulpore road through Seonī. The District has 137 miles of metalled and 210 miles of unmetalled roads, and the annual expenditure on maintenance is Rs. 68,000. The Public Works department has charge of 269 miles of road, and the District council of 78 miles. There are avenues of trees on 31 miles.

Famine.

The only years in which failures of crops sufficiently serious to cause distress have been recorded were 1868–9, 1896–7, and 1899–1900. During the first two of these Chhindwāra fared better than most other parts of the Province. In 1868, the year of the Bundelkhand famine, there was but slight distress, while in 1896 the only crops that completely failed were the small millets on which the hill tribes subsist. Distress was mainly confined to the *jāgīr* estates and the western portion of the Chhindwāra *tahsīl*. The maximum number on relief in October, 1897, was about 24,000, and the expenditure 5·7 lakhs. In 1899–1900 there was a general failure of crops, with the exception of cotton, which gave a fair out-turn. More than 70,000 persons, or 17 per cent. of the population, were being relieved in May, 1900, and the total expenditure was 16 lakhs. A large number of village tanks were constructed or repaired; and the relief works also included the construction of some forest roads, the raising of the embankment for the new line of railway, and various improvements to the main road communications of the District.

Administration.

The Deputy-Commissioner is aided by one Assistant or Extra-Assistant Commissioner. For administrative purposes the District is divided into two *tahsīls*, Chhindwāra and Sausar, each of which has a *tahsīldār* and a *naib-tahsīldār*. A Forest officer of the Imperial service is usually posted to the District.

The civil judicial staff consists of a District and a Subordinate Judge, and a Munsif for each *tahsīl*. The Divisional and Sessions Judge of the Nerbudda Division has superior civil and criminal jurisdiction. The crime of the District is not heavy, and the civil litigation is of the ordinary type.

The share of the revenue left to the *pātel* or manager of the village by the Marāthā administration was usually only about 15 per cent. of the 'assets.' Out of this, moreover, he had to remunerate the village

servants, and make certain charitable payments and allowances, while he was also liable at any time to be called upon to pay an extra cess, over and above the regular revenue. During the latter period of Marāthā rule their territories were mercilessly rack-rented, in the endeavour to raise their total revenue to the figure at which it had stood before they had been obliged to cede Orissa and Berār by the Treaty of Deogaon. The District was thus in a very impoverished condition when it was taken over by the British in 1853. Triennial settlements were made for ten years, the Government share, in continuation of previous practice, being fixed at about 80 per cent. of the 'assets.' Between 1863 and 1867 a thirty years' settlement was made, the Government demand being approximately 66 per cent. of the prospective 'assets.' This resulted in a reduction of the existing revenue by about 9 per cent., and the demand was finally fixed at 2·14 lakhs. At this settlement the village headmen, who had previously held the position of managers or farmers, received proprietary and transferable rights in their villages. During the currency of the thirty years' settlement the cropped area increased by 41 per cent., and it was calculated that the prices of agricultural produce had doubled. The District was resettled between 1891 and 1895 for a period varying from fourteen to seventeen years. The revised demand was fixed at 2·97 lakhs, of which Rs. 6,000 is 'assigned,' giving an increase of 37 per cent. on the former demand, and falling at 55 per cent. on the actual 'assets.' The average revenue incidence per acre was R. 0–5–11 (maximum R. 0-10-11, minimum R. 0-2-2), and the rental incidence R. 0–9–9 (maximum Rs. 1-0-7, minimum R. 0–4–0).

The receipts of land revenue and total revenue for a series of years are shown below, in thousands of rupees:

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	2,21	2,21	3,68	2,97
Total revenue . .	3,84	5,02	6,47	6,80

The management of local affairs, outside municipal areas, is entrusted to a District council and three local boards, including one for the *jāgīrs*. The income of the District council in 1903–4 was Rs. 44,000, while the expenditure on education was Rs. 18,000 and on public works Rs. 11,000. CHHINDWĀRA, SAUSAR, and PĀNDHURNĀ are municipal towns.

The force under the District Superintendent of police consists of 322 officers and men, including 3 mounted constables, besides 1,541 watchmen for 1,755 towns and inhabited villages. The police administration in the *jāgīrs* has recently been taken under direct supervision. Chhindwāra town has a District jail, with accommodation for 121

prisoners, including 9 females. The daily average number in 1904 was 52.

In respect of education Chhindwāra stands tenth among the Districts of the Province, 2·2 per cent. of the population (4·5 males and 0·1 females) being able to read and write. The proportion of children under instruction to those of school-going age is 8 per cent. Statistics of the number of pupils are as follows: (1880–1) 1,749, (1890–1) 2,181, (1900–1) 3,094, (1903–4) 4,974, including 102 girls. The educational institutions comprise an English middle school at Chhindwāra, five vernacular middle schools, and 63 primary schools. The expenditure on education in 1903–4 was Rs. 30,000, of which Rs. 20,000 was derived from Provincial and Local funds and Rs. 2,000 from fees.

The District has four dispensaries, with accommodation for 34 in-patients. In 1904 the number of cases treated was 25,288, of whom 362 were in-patients, and 883 operations were performed. The total expenditure was Rs. 6,000.

Vaccination is compulsory only in the municipal areas of Chhindwāra, Sausar, and Pāndhurnā, and in the towns of Lodhikhedā and Mohgaon. The number of persons successfully vaccinated in 1903–4 was 47 per 1,000 of the District population, a high proportion.

[C. W. Montgomerie, *Settlement Report* (1899). A District Gazetteer is being prepared.]

Chhindwāra Tahsīl.—Northern *tahsīl* of Chhindwāra District, Central Provinces, lying between 21° 46′ and 22° 49′ N. and 78° 10′ and 79° 24′ E., with an area of 3,528 square miles. The population in 1901 was 286,779, compared with 287,043 in 1891. The density is 81 persons per square mile. The *tahsīl* contains one town, CHHINDWĀRA (population, 9,736), the *tahsīl* and District head-quarters; and 1,368 inhabited villages. The demand for land revenue in 1903–4 was Rs. 1,78,000, and for cesses Rs. 24,000. The *tahsīl* consists of an upland plateau broken by small hills, which forms the *mālguzāri* tract or that held on the ordinary proprietary tenure, and of a mass of higher hill and forest country which forms the estates of ten *jāgirdārs* or hereditary chieftains, covering 1,597 square miles to the north. Excluding 381 square miles of Government forest and the *jāgīr* area of 1,597 square miles, 68 per cent. of the remaining *mālguzāri* area is occupied for cultivation. The cultivated area of the whole *tahsīl* in 1903–4 was 1,267 square miles. Of the area included in the *jāgīrs*, 495 square miles are forest.

Chhindwāra Town.—Head-quarters of the District and *tahsīl* of the same name, Central Provinces, situated in 22° 4′ N. and 78° 57′ E., on the Bodrī, 80 miles from Nāgpur by road. A branch narrow-gauge line of the Bengal Nāgpur Railway was opened to Chhindwāra in 1905. The town stands on the Sātpurā plateau at an elevation of 2,200 feet, and possesses a pleasant and healthy climate. The name is derived

from the *chhind* or bastard date-palms which are found in the vicinity. Chhindwāra is said to have been founded by one Ratan Raghuvansi, who let loose a goat, and on the place where it lay down built a house, burying the goat alive beneath the foundations. The goat is worshipped as the tutelary deity of the town. Population (1901), 9,736. Chhindwāra was created a municipality in 1867. The municipal receipts during the decade ending 1901 averaged Rs. 13,000. In 1903–4 the income was Rs. 17,000, the principal head of receipt being octroi. The town is a centre for local trade, and the handicrafts carried on include the manufacture of pottery and cotton hand-weaving. A small quantity of *tasar* silk is woven. There is a printing press, which publishes a monthly magazine in Hindī. Three weekly markets are held for the sale of cattle, timber, and grain. Chhindwāra possesses an English middle school and branch school, a private school teaching Arabic, and two dispensaries, including a police hospital. A station of the Swedish Lutheran Mission has been established here.

Chhindwāra Town.—Town in the District and *tahsīl* of Narsinghpur, Central Provinces, situated in 23° 2′ N. and 79° 29′ E., on the Great Indian Peninsula Railway, 583 miles from Bombay. Population (1901), 4,216. Chhindwāra is on the old trunk road to the Deccan, and was established in 1824 by Sir W. Sleeman for the convenience of travellers through the Narbadā valley, at the time when this road was infested by Thags. It was created a municipality in 1867. The municipal receipts during the decade ending 1901 averaged Rs. 4,400. In 1903–4 the income was Rs. 4,700, derived mainly from fees on the registration of cattle. Produce from the adjoining tracts is brought to Chhindwāra station for export, and an important weekly cattle market is held here at which more than 1,000 head change hands. A cotton-ginning factory has been erected. Chhindwāra possesses a vernacular middle school and a dispensary.

Chhitārī (or Chitārī). Town in Bulandshahr District, United Provinces. *See* CHHATĀRĪ.

Chhotā Nāgpur.—Division and group of Native States in Bengal. *See* CHOTĀ NĀGPUR.

Chhotā Sinchulā.—Peak in Jalpaiguri District, Eastern Bengal and Assam. *See* CHOTĀ SINCHULA.

Chhotī Sādri.—Head-quarters of a *zila* or district of the same name in the State of Udaipur, Rājputāna, situated in 24° 23′ N. and 74° 43′ E., about 66 miles east-by-south-east of Udaipur city. The town is walled and contains (1901) 5,050 inhabitants. It possesses a post office, a primary vernacular school attended by about 110 boys, and a dispensary. The Chhotī Sādri *zila* is the most fertile in the State, the soil being for the most part black cotton.

Chhuīkhadān (or Kondkā).—Feudatory State in the Central Pro-

vinces, lying between 21° 30′ and 21° 38′ N. and 80° 53′ and 81° 11′ E. This small State consists of three detached blocks and a single village lying in the rich tract of black soil at the foot of the eastern range of the Sātpurā Hills, surrounded by the Khairāgarh and Nāndgaon States and the *zamīndāris* of Drug District. The total area is 154 square miles, almost the whole of which is a fertile cultivated plain. The head-quarters, Chhuīkhadān ('the quarry of white clay'), is situated 31 miles from both the Rāj-Nāndgaon and Dongargarh stations of the Bengal-Nāgpur Railway, the road to Chhuīkhadān being through Khairāgarh. Its population in 1901 was 2,085. The ruling family belongs to a sect of Bairāgis among whom marriage is permitted, and the succession is determined by the ordinary law of primogeniture. The nucleus of the State was formerly the Kondkā tract of the Parpodī *zamīndari*, which was acquired from the *zamīndār* in satisfaction of a loan by Mahant Rup Dās, the founder of the Chhuīkhadān family, about the middle of the eighteenth century. His successor, Tulsī Dās, was recognized by the Bhonsla Rājā of Nāgpur as *zamīndār* of Kondkā about 1780, and the status of Feudatory chief was conferred on the family in 1865. In 1867, on the accession of Mahant Shām Kishor Dās, who had for some years previously been virtual ruler, the chief was required, in consequence of his tyrannous behaviour to the headmen of villages, to conduct the administration with the advice of a Dīwān appointed by Government. Shām Kishor Dās died in 1896, and his son and successor, Radha Ballabh Kishor Dās, was poisoned two years later, together with one of his sons, by arsenic administered by a relative. The offender and his accomplice were convicted by a special court and executed; and the eldest son, Digbijai Jugal Kishor Dās, a boy of fifteen years of age, succeeded, the estate being managed by Government during his minority. This boy, who was very weakly, died in 1903, and was succeeded by his younger brother, Bhūdav Kishor Dās, aged fourteen years, who is being educated at the Rājkumār College, Raipur. The population of the State in 1901 was 26,368, having decreased by 27 per cent. in the previous decade, during which Chhuīkhadan was severely affected by famine. The number of inhabited villages is 107, and the density of population 171 persons per square mile. Gonds, Lodhīs, Telis, and Ahirs are the principal castes, and the whole population speaks the Chhattīsgarhī dialect of Hindī.

The State contains a large area of fertile black soil, and 114 square miles, or 74 per cent. of the total area, were occupied for cultivation in 1904, of which 104 were under crops. *Kodon* covers 53 square miles of the cropped area, wheat 19 square miles, and rice 9,000 acres. The State forests comprise an area of only 15 square miles, and except for a little teak contain no valuable timber. The gravelled road from Dongargarh to Pandaria passes through Chhuīkhadān, and the length

of 15 miles within its borders was constructed and is maintained from State funds.

The total revenue in 1904 was Rs. 73,000, of which Rs. 56,000 was derived from land, Rs. 2,000 from forests, and Rs. 4,000 from excise. The incidence of land revenue is 11 annas 4 pies per cultivated acre. The total expenditure in the same year was Rs. 76,000, the principal items being Government tribute (Rs. 15,000), allowances to the ruling family (Rs. 7,300), general administration (Rs. 7,000), and public works (Rs. 26,000). Seven schools with 572 pupils are supported from the State funds, including a vernacular middle school at Chhuīkhadān. The expenditure on education is about Rs. 2,000. In 1901 the number of persons returned as literate was 468, the proportion of males able to read and write being 3·6 per cent. A dispensary is maintained at Chhuīkhadān, at which about 4,800 persons were treated in 1904. The administration of the State is supervised by a Political Agent under the Commissioner, Chhattīsgarh Division.

Chicacole Subdivision.—Subdivision of Ganjām District, Madras, consisting of the *tāluk* of CHICACOLE and the *zamīndāri tahsīls* of NARASANNAPETA, PARLĀKIMEDI, and TEKKALI.

Chicacole Tāluk.—Southernmost of the three Government *tāluks* in Ganjām District, Madras, lying between 18° 12′ and 18° 40′ N. and 83° 51′ and 84° 18′ E., with an area of 373 square miles. The population in 1901 was 223,373, compared with 212,608 in 1891. They live in 305 villages and two towns, CHICACOLE (population, 18,196), the head-quarters, and NARASANNAPETA (7,886). The demand for land revenue and cesses in 1903–4 was Rs. 4,16,500. The 'wet' land of a large portion of the *tāluk* is irrigated by river channels from the Lāngulya and the Vamsadhāra.

Chicacole Town (*Srīkakulam*).—Head-quarters of the subdivision and *tāluk* of the same name in Ganjām District, Madras, situated in 18° 17′ N. and 83° 55′ E., on the left bank of the Lāngulya 4 miles from its mouth, and on the trunk road 567 miles from Madras and 422 miles from Calcutta, and 9 miles from the station of Chicacole Road on the East Coast Railway. Population (1901), 18,196.

When the Musalmāns ruled this part of the country it was the capital of the Chicacole *Sarkār*, one of the five NORTHERN CIRCĀRS. A notable memorial of their dominion is the handsome mosque built in 1641 from the materials of a demolished Hindu temple by Sher Muhammad Khān, the first Faujdār, or military governor, under the Kutb Shāhi dynasty of Golconda. When the English occupied the country it was for many years an important military station, and was also for a time the civil head-quarters of the District and, until 1865, the residence of the District Judge. In 1791 the town was nearly depopulated by famine, and it again suffered severely from scarcity in 1866 and in 1877.

In 1876 a furious cyclone swept over this part of the District and the Lāngulya came down in heavy flood. Trees and other débris choked the arches of the fine masonry bridge on which the trunk road crosses it at the town, and at the same time a great storm wave rushed up the river from the sea. The six centre arches of the bridge collapsed in consequence. They were afterwards rebuilt.

Chicacole is a very straggling town, with several outlying villages. It enjoys a good climate. Now that the railway passes so far away it is declining in importance. It was constituted a municipality in 1867. The municipal receipts and expenditure varied but little during the ten years ending 1902–3, averaging Rs. 27,000. In 1903–4 they amounted to Rs. 31,000, the chief source of income being the taxes on houses and lands, school-fees, and tolls. The council maintains a high school, which had an average daily attendance of 255 boys in 1903–4 and sends up candidates for matriculation. The place possesses a town hall constructed from public subscriptions, and a public library, the gift of Rao Bahādur T. V. Siva Rao Pantulu Gāru. Chicacole is known for the fine muslins and durable checks woven in it. Its muslins were at one time as famous as those of Dacca or Arni; but the industry has suffered from the competition of machine-made fabrics, and the finer kinds are now only made to order.

Chidambaram Subdivision.—Subdivision of South Arcot District, Madras, consisting of the *tāluks* of CHIDAMBARAM and VRIDDHACHALAM.

Chidambaram Tāluk. Southern *tāluk* of South Arcot District, Madras, lying between 11° 11′ and 11° 30′ N. and 79° 19′ and 79° 49′ E., with an area of 402 square miles. The Coleroon bounds it on the south, separating it from Tanjore, and the river VELLAR runs across it; thus, unlike the rest of the District, it contains wide irrigated areas watered by large works from these rivers. The channels from the Lower Anicut across the Coleroon supply about 246 villages. The population in 1901 was 294,868, compared with 282,275 in 1891. It contains 336 villages and two towns namely, CHIDAMBARAM (population, 19,909), a municipality and the head-quarters of the *tāluk*, and PORTO NOVO (13,712), a seaport. The demand for land revenue and cesses amounted in 1903–4 to Rs. 9,33,000. The density of population is as high as 734 persons per square mile, the District average being 450: and the annual rainfall, which is about 51 inches, is heavier than in any other *tāluk*.

Chidambaram Town (*Chit Ambalam*, 'the atmosphere of wisdom').—Head-quarters of the *tāluk* of the same name in South Arcot District, Madras, situated in 11° 25′ N. and 79° 42′ E., on the South Indian Railway. The population in 1901 was 19,909, of whom 18,627 were Hindus and 1,199 Musalmāns. A municipality was constituted

in 1873. The receipts and expenditure during the ten years ending 1902–3 averaged Rs. 24,800 and Rs. 25,100 respectively. In 1903–4 they were Rs. 25,800 and Rs. 27,600, the former consisting chiefly of the proceeds of the taxes on houses and land. An estimate for a water-supply amounting to Rs. 2,82,000 is now under consideration.

During the Carnatic Wars Chidambaram was a place of considerable strategic importance. In 1749 the ill-fated expedition under Captain Cope against Devikottai halted here on its retreat to Fort St. David. In 1753 the French occupied it. In 1759 an attempt by the English failed, but it capitulated to Major Monson in 1760. Later on, Haidar Alī improved the defences and placed a garrison in the great temple. In 1781 Sir Eyre Coote attacked the temple, but was driven off.

Chidambaram is principally famous for its great Siva temple. This covers an area of 39 acres in the heart of the town, and is surrounded on all four sides by streets about 60 feet wide. It contains one of the five great *lingams*, namely, the 'air *lingam*,' which is known also as the Chidambara Rahasyam or the 'secret of Chidambaram.' No *lingam* actually exists; but a curtain is hung before a wall, and when visitors enter the curtain is withdrawn and the wall exhibited, the '*lingam* of air' being, of course, invisible. The temple is held in the highest reverence throughout Southern India and Ceylon, and one of the annual festivals held in December and January is largely attended by pilgrims from all parts of India. As an architectural edifice it is a wonderful structure, for it stands in the middle of an alluvial plain between two rivers where there is no building stone within 40 miles; and yet the outer walls are faced with dressed granite, the whole of the great area enclosed by the inner walls is paved with stone, the temple contains a hall which stands on more than 1,000 monolithic pillars, into the gateways are built blocks of stone 30 feet high and more than 3 feet square, and the reservoir, which is 150 feet long and 100 feet broad and very deep, has long flights of stone steps leading down to the water on all four sides. The labour expended in bringing all this and other material 40 miles through a country without roads and across the Vellār river must have been enormous.

The temple contains five Sabhas or halls, besides shrines to Vishnu and Ganesa. Its age and architecture are discussed at some length in Fergusson's *History of Indian Architecture*, which also contains several woodcuts of different parts of it. The Nāttukottai subdivision of the Chetti caste have recently been restoring the building at considerable cost. It possesses no landed endowments, and is managed in a most unusual way by the members of a sect of Brāhmans called Dīkshitars, who are peculiar to Chidambaram and depend entirely upon public offerings for their own maintenance and for the upkeep of the temple. The management may be described as a domestic hierarchy, each male

married member of the sect possessing an equal share in its control. No accounts are kept. The Dīkshitars take it in turns to perform the daily worship. Except the temple, the place contains little of interest. There is a resthouse built by a Nāttukottai Chetti in which poor pilgrims are fed daily, and many other resthouses provide accommodation for travellers. A high school in the town is managed by the trustees of the well-known Pachayyappa charities.

Chikalda.—Sanitarium in the Melghāt *tāluk*, Amraotī District, Berār, situated in 21° 24′ N. and 77° 22′ E., on a plateau in the Sātpurā Hills, about 5 miles in length and three-quarters of a mile broad, 3,664 feet above the sea; distant about a mile and a half from Gāwilgarh fort and rather less than 20 miles from Ellichpur. Chikalda is connected with Ellichpur by three roads, one of which, 30 miles in length, is suitable for carriages. At Ghatang, about half-way between Ellichpur and Chikalda, is a travellers' bungalow, which is an agreeable resting-place. There is no tonga service between Ellichpur and Chikalda, and travellers must make their own arrangements with the *tahsīldar* at the former place for carriage. Chikalda has been a favourite Berār sanitarium since 1839, when the first bungalows were built on the plateau by officers of the Ellichpur Brigade. The heads of departments in Berār spend a portion of the hot season at Chikalda, which is also the head quarters of the Conservator of Forests and of the *tahsīldār* of the Melghāt. The climate, though not to be compared with that of sanitaria at higher elevations in the Himālayas and Nilgiris, is equable, cool, and bracing. The mean temperature in May, July, and December, which may be selected as typical of the hot, rainy, and cold seasons, is 86°, 75°, and 65°. The scenery is beautiful, and the vegetation luxuriant and varied in character roses, clematis, orchids, ferns, and lilies succeeding each other with the changing seasons. Balsams, zinnias, wild ginger, and orchis also abound. Excellent potatoes were formerly grown at Chikalda, and tea might possibly be grown, though not in quantities sufficient to justify the exploitation of the limited area of the Chikalda plateau. The coffee grown in private gardens is of excellent quality, and the plateau, if brought under cultivation, could doubtless supply vegetables for a European community larger than that which is now accommodated in the twelve houses in Chikalda, and in a hotel. At Mariampur, near Chikalda, the Order of St. Francis of Sales has a mission.

Chik-Ballāpur Tāluk.—Western *tāluk* of Kolār District, Mysore, lying between 13° 20′ and 13° 40′ N. and 77° 36′ and 77° 52′ E., with an area of 250 square miles. The population in 1901 was 56,057, compared with 51,592 in 1891. The *tāluk* contains one town, CHIK-BALLAPUR (population, 5,521), the head quarters; and 266 villages. The land revenue demand in 1903–4 was Rs. 96,000. This is a

mountainous *tāluk*, the Nandidroog range running along the west from south to north, with the head-waters of seven rivers. The soil in the south-east is of great fertility, specially favourable for the cultivation of sugar-cane. The north-east abounds in deep ravines and broken ground.

Chik-Ballāpur Town.—Head-quarters of the *tāluk* of the same name in Kolār District, Mysore, situated in 13° 26′ N. and 77° 44′ E., 22 miles north-east of Dod-Ballāpur railway station. Population (1901), 5,521, a decrease from 10,623 in 1891, owing chiefly to plague. Chikka or Little Ballāpur is so called to distinguish it from Dodda or Great Ballāpur. It is at the eastern base of the Nandidroog range, and was founded about 1479 by a chief of the Morasu Wokkaliga refugees at Avati. In this family it continued, being tributary to Vijayanagar, until taken by Haidar Alī. The London Mission have an out-station here. There is a native iron foundry, and the silk industry is largely pursued. The municipality dates from 1870. The receipts and expenditure during the ten years ending 1901 averaged Rs. 8,100 and Rs. 7,700. In 1903–4 they were Rs. 11,000 and Rs. 10,000. A light railway has been proposed to connect Chik-Ballāpur with Bangalore.

Chikhlī Tāluk.—*Tāluk* of Buldāna District, Berār, lying between 20° and 20° 37′ N. and 75° 57′ and 76° 42′ E., with an area of 1,009 square miles. The population fell from 150,098 in 1891 to 129,590 in 1901, the density in the latter year being 128 persons per square mile. The *tāluk* contains 269 villages and three towns: Chikhlī (population, 5,889), the head-quarters, Deūlgaon Rājā (6,293), and Buldāna (4,137), the head-quarters of the District. The demand for land revenue in 1903–4 was Rs. 3,37,000, and for cesses Rs. 26,000. The *tāluk* lies entirely in the Bālāghāt or southern plateau of Berār, but contains a large proportion of fertile land, especially in the valleys of the streams, where wheat is cultivated with success.

Chikhlī Town.—Head-quarters of the *tāluk* of the same name in Buldāna District, Berār, situated in 20° 21′ N. and 76° 18′ E. Population (1901), 5,889. Metalled roads run to Buldāna and Mehkar, and the town is a centre of local trade.

Chikhlī.—Eastern *tāluka* of Surat District, Bombay, lying between 20° 37′ and 20° 54′ N. and 72° 59′ and 73° 17′ E., with an area of 168 square miles. The population in 1901 was 59,692, compared with 61,315 in 1891. The *tāluka* contains 61 villages and one town, Chikhlī (population, 4,440), the head-quarters. Land revenue and cesses amounted in 1903–4 to 2·3 lakhs. Chikhlī consists of raised plateaux with intervening belts of low-lying land. The elevated tracts are seamed by rocky watercourses. The soil, being poor and shallow, is cultivated only in patches, and yields little but grass and brushwood. The low-lying lands between these elevations contain a very fertile soil, bearing superior crops of grain, sugar-cane, and fruit. The *tāluka* is watered by

the Ambika, Kāveri, Kharera, and Auranga rivers, which flow through it from east to west.

Chikhli.—Estate in Khāndesh District, Bombay. *See* MEHWĀS ESTATES.

Chikmugalūr Tāluk.—Central *tāluk* of Kadūr District, Mysore, lying between 13° 11′ and 13° 34′ N. and 75° 29′ and 76° 1′ E., with an area of 638 square miles. The population in 1901 was 90,681, compared with 77,630 in 1891. The *tāluk* contains one town, CHIKMUGALŪR (population, 9,515), the head-quarters; and 235 villages. The land revenue demand in 1903–4 was Rs. 2,13,000. The north is occupied by the lofty forest-clad circle of the BĀBĀ BUDAN MOUNTAINS (highest peak, Mulainagiri, 6,317 feet), enclosing the Jāgar valley. The Bhadra, flowing north, forms most of the western boundary. The annual rainfall averages 36 inches. Around Chikmugalur is an elevated tract of rich black soil, watered by perennial streams from the Bābā Budans, the principal being the Yagachi, which runs south-east. Its fertility was such that it was called Honjavanige, or 'flowing with gold.' It is bare of trees, but produces unfailing crops of wheat, Bengal gram, sugarcane, rice, coriander, fenugreek, garlic, onions, and safflower. The west of the *tāluk* forms part of the Malnād. There are many coffee plantations on the slopes of the Bābā Budans.

Chikmugalūr Town.—Head-quarters of the *tāluk* of the same name in Kadūr District, Mysore, situated in 13° 19′ N. and 75° 46′ E., 25 miles south-west of Kadūr railway station. Population (1901), 9,515. It stands in the fertile valley of black soil south of the Bābā Budan range, and has increased enormously since the removal hither of the District head-quarters from Kadūr in 1865. The fort was in existence in the ninth century under the Ganga kings, and then passed to the Hoysalas. The modern town, extending from the fort to Basavanhalli, which it includes, was established in 1865; and a number of Muhammadan traders and shopkeepers have settled here, who supply the wants of the coffee plantations to the west. The water-supply is drawn from a tank at the foot of the Bābā Budans. The municipality dates from 1870. The receipts and expenditure during the ten years ending 1901 averaged Rs. 30,000 and Rs. 29,000. In 1903–4 they were Rs. 22,000 and Rs. 31,000.

Chiknāyakanhalli Tāluk.—Western *tāluk* of Tumkūr District, Mysore, including Huliyār as a sub-*tāluk* till 1902, and lying between 13° 19′ and 13° 44′ N. and 76° 21′ and 76° 45′ E., with an area of 532 square miles. The population in 1901 was 60,071, compared with 50,760 in 1891. An area of 97 square miles was transferred to the District of Chitaldroog in 1902–3. The *tāluk* contains two towns, CHIKNĀYAKANHALLI (population, 6,113), the head-quarters, and HULIYAR (1,228); and 278 villages. The land revenue demand in 1903–4

was Rs. 1,19,000. From east to north the *tāluk* is crossed by low bare hills of the Chiknāyakanhalli auriferous band. Humidity from fogs which form on the hills often preserves the crops from failure in dry seasons. The drainage is northwards to the Vedāvati or Hagari. In the north-east the large Borankanave tank has been formed by damming a gorge in the hills. Coco-nut and areca-nut plantations abound in the *tāluk*. Gold-mining has been experimentally begun at Bellara in the north.

Chiknāyakanhalli Town.--Head-quarters of the *tāluk* of the same name in Tumkūr District, Mysore, situated in 13° 25′ N. and 76° 37′ E., 12 miles north of Bānasandra railway station. Population (1901), 6,113. It is named after Chikka Naik, one of the Hāgalvādi chiefs at the end of the sixteenth century. The town was held alternately by the Muhammadans and the Marāthās till taken in 1671 by the Mysore Rājā, and it then formed the north frontier town. Dodda Deva Rājā of Mysore died here in 1672. The place was plundered and the fort destroyed by the Marāthās on their way to join Lord Cornwallis before Seringapatam in 1791. It is a prosperous town, surrounded by coco-nut and areca-nut gardens. Their produce, with the white and coloured cotton cloths made in the place, are largely sold at the weekly fair. There are seven endowed temples. The municipality dates from 1870. The receipts and expenditure during the ten years ending 1901 averaged Rs. 2,700 and Rs. 2,500. In 1903-4 they were Rs. 4,000 and Rs. 3,800.

Chikodi Tāluka.—North-western *tāluka* of Belgaum District, Bombay, lying between 16° 3′ and 16° 40′ N. and 74° 15′ and 74° 48′ E., with an area, including the Hukeri petty subdivision (*petha*), of 836 square miles. It contains two towns, NIPĀNI (population, 11,632) and YAMKANMARDI (4,556); and 210 villages, including BHOJ (5,450), BORGAON (5,495), CHIKODI, the head-quarters (8,037), EKSAMBE (5,970), HUKERI (6,265), KARADGE (5,138), KONGNOLI (5,597), SADALGI (9,091), and SANKESHWAR (5,639). The population in 1901 was 304,549, compared with 295,305 in 1891. Chikodi is the most thickly populated *tāluka* in the District, with a density of 364 persons per square mile, and this was the only *tāluka* which increased in population between 1891 and 1901. The demand for land revenue in 1903-4 was 3·34 lakhs, and for cesses Rs. 32,000. The rich black soil of the north gradually passes into red towards the west. In the south the soil is gritty and poor. The *tāluka* is famous for its tobacco, sugar-cane, fruit, and vegetable gardens. The irrigation wells protect a large area. The annual rainfall averages 32 inches.

Chikodi Village.—Head-quarters of the *tāluka* of the same name in Belgaum District, Bombay, situated in 16° 26′ N. and 74° 35′ E., 16 miles from Chikodi station on the Southern Mahratta Railway. Population (1901), 8,037. It is a considerable entrepôt of trade

between the interior and the coast, with which it has ready communication by a road from Nipāni over the Phonda *ghāt*. Cotton goods are manufactured, chiefly for local use. It was described as a large and respectable town by Captain Moor in 1790. The neighbourhood was then famous for grapes of extraordinary size and flavour. Chikodi contains a Subordinate Judge's court, a dispensary, and four schools with 200 pupils, of which one is a girls' school with 40 pupils.

Chiktiābar.—*Thakurāt* in BHOPĀWAR AGENCY, Central India.

Chilambaram.—Subdivision, *tāluk*, and town in South Arcot District, Madras. *See* CHIDAMBARAM.

Chilās.—A group of republics, west of Kashmīr State. *See* SHĪNĀKĪ.

Chiliānwāla.—Village in the Phālia *tahsīl* of Gujrāt District, Punjab, situated in 32° 39′ N. and 73° 37′ E., on the Sind-Sāgar branch of the North-Western Railway. It is famous as the scene of Lord Gough's doubtful victory over Sher Singh in the second Sikh War in 1849. Lord Gough, after marching for several days from the Chenāb, came in sight of the enemy near Chiliānwāla on the afternoon of January 13. While his men were engaged in taking ground for an encampment, a few shots from the Sikh horse artillery fell within his lines. The general thereupon gave the order for an immediate attack; and the British moved rapidly forward through the thick jungle, in the face of masked batteries. Beaten back time after time, they still advanced upon the unseen enemy, until at last, by some misapprehension, a regiment of cavalry began to retreat in a somewhat disorderly manner. Although by this time the troops had taken fifteen or sixteen of the enemy's guns, and the artillery had swept the Sikh line from end to end, the unfortunate panic among the cavalry, the loss of almost an entire British regiment (the 24th), and the approach of darkness combined to prevent continued action. The Sikhs remained in possession of more than one British gun, besides holding some colours. At the end of the engagement, the British troops maintained their position, and the enemy retreated during the night. The British lost 22 European officers, 16 native officers, and 561 men killed, and 98 missing; while 67 European officers, 27 native officers, and 1,547 men were wounded. The temporary loss of prestige was fully retrieved by the decisive battle of Gujrāt, a month later, which placed the whole Punjab in the power of Lord Gough. An obelisk, erected upon the spot, commemorates the British officers and men who lost their lives upon the field, which is known to the people of the neighbourhood as Katalghar, or the 'house of slaughter.'

Chilka Lake.—A shallow inland gulf, situated between 19° 28′ and 19° 56′ N. and 85° 6′ and 85° 86′ E., in the south-east corner of Purī District, Bengal, and in the extreme south extending into the Madras District of Ganjām. A long sandy ridge, in places little more than

200 yards wide, separates it from the Bay of Bengal, with which its only connexion is by a single narrow mouth intersecting this ridge towards its centre. On the west and south the lake is walled in by lofty hills, while to the north it loses itself in endless shallows, sedgy banks, and islands just peeping above the surface, formed year by year from the silt which the rivers bring down. The lake spreads out into a pear-shaped expanse of water 44 miles long, of which the northern half has a mean breadth of about 20 miles, while the south tapers into an irregularly curved point, barely averaging 5 miles wide. Its smallest area is 344 square miles in the dry season, increasing to about 450 during the rainy season; and the average depth is from 3 to 5 feet, scarcely anywhere exceeding 6 feet. The bed is a very few feet below the high-water level of the sea, although in some parts it is slightly below low-water mark. The narrow tidal stream, which rushes through the neck connecting the lake with the sea, suffices to keep the water distinctly salt during the dry months from December to June. But once the rains have set in, and the Bhārgavī and Dayā rivers come pouring down upon its northern extremity, the sea-water is gradually driven out and the Chilka becomes a fresh-water lake. This changeable mass of water forms one of a series of lacustrine formations along the western shores of the Bay of Bengal, the result of a perpetual war going on between the rivers and the sea—the former struggling to find vent for their water and silt, the latter repelling them with its sand-laden currents.

The Chilka may be regarded as a gulf of the original Bay of Bengal. On the south, a bold, barren spur of hills runs down to the coast; on the north the land-making rivers have pushed out their rounded mouths and flat deltas into the ocean. Nor has the sea been idle. Meeting and overmastering the languid river-discharge that enters the Chilka, it has joined the two extremities with a bar of sand, and thus formed a lake. The delicate process of land-making from the river silt at the north-east end of the lake is slowly but steadily going on, while the bar-building sea is still busily at work. Old documents show that a century ago the neck of land dividing the lake from the sea was only from half a mile to a mile broad in places where it is now two miles; and the opening in the bar, which was a mile wide in 1780 and had to be crossed in large boats, was described forty years later as choked up. Shortly before 1825 an artificial mouth had to be cut; and although this also rapidly began to silt up, it remained, as late as 1837, more than three times its present breadth. The difficulty in maintaining an outlet from the Chilka forms one of the chief obstacles to utilizing the lake as an escape for the floods that desolate the delta. Engineers report that, although it would be easy and cheap to cut a channel, it would be very costly and difficult to keep it open; and that each successive mouth would speedily choke up and share the fate of its predecessors.

The scenery of the Chilka is very varied, and in parts exceedingly picturesque. In the south and west hill ranges bound its shores; and in this part it is dotted with a number of small rocky islands. Proceeding northwards, the lake expands into a majestic sheet of water. Half-way across is Nalbana, literally 'the reed forest,' an island about 5 miles in circumference, scarcely anywhere rising more than a few inches above water-level. This island is altogether uninhabited, but is regularly visited by parties of thatchers from the mainland, who cut the reeds and high grasses with which it is covered. On the eastern side of the lake lie the islands of Pārikūd, with new silt formations behind and now partially joined to the narrow ridge of land which separates the Chilka from the sea. At some places they emerge almost imperceptibly from the water; at others, they spread out into well-raised rice-fields. Their northern extremity slopes gracefully down to the lake like an English park, dotted with fine trees, and backed by noble masses of foliage. Water-fowl of all kinds are very abundant in every part of the lake. Beyond the northern end of Pārikūd, the lake gradually shallows until it becomes solid ground, for here the Purī rivers empty themselves and the process of land-making is going on. The northern shores of the Chilka comprise the *parganas* of Sirai and Chaubīskūd, and it is these tracts which have to bear the greatest suffering in times of general inundation in Purī.

At its southern extremity in the Madras District of Ganjām stands the village of Rambha. Before Ganjām town was overwhelmed with fever and when it was still the capital of the District which bears its name, this used to be a favourite resort of its European residents in the hot months.

A tidal canal 7 miles long connects the lake with the Rushikulya river and is navigable throughout the year. Large quantities of grain are imported from Orissa across the lake and along this canal, and salt is exported in return. The boats employed are flat-bottomed vessels, which are poled against the wind or drift before it under crazy mat sails.

Chināb.—River in the Punjab and Kashmīr. *See* CHENĀB.

Chinchani.—Village in Thāna District, Bombay. *See* TĀRĀPUR CHINCHANI.

Chinchkhed.—Village in Khāndesh District, Bombay. *See* MĀHEJI.

Chinchli.—Village in the State of Kolhāpur, Bombay, situated in 16° 34′ N. and 74° 50′ E., on the Kistna, about 42 miles south-east of Kolhāpur city. Population (1901), 3,540. Chinchli is a station on the Southern Mahratta Railway. The place is chiefly known for the shrine of the goddess Mahākālī, popularly called Māyāka. Four times a year pilgrims visit the shrine; and on the full moon of Māgh (January–February) a large fair is held, which is attended by about 35,000 people.

Chinchli-Gadad.—Petty State in the DĀNGS, Bombay.

Chincholi.—North-eastern *tāluk* of Gulbarga District, Hyderābād State, with an area of 413 square miles. The population in 1901 was 58,860, compared with 50,737 in 1891. Chincholi (population, 4,008) is the head-quarters, and the *tāluk* contains 110 villages, of which 41 are *jāgīr*. The land revenue in 1901 was 1·5 lakhs. Chincholi is hilly, and composed of lateritic and black cotton soils. In the rearrangement of 1905 the *tāluk* received a few villages from Kodangal.

Chinchvad.—Village in the Haveli *tāluka* of Poona District, Bombay, situated in 18° 37′ N. and 73° 47′ E., about 10 miles north-west of Poona city, on the right bank of the Pauna, which falls into the Mulā below the village of Aundh, and on the Great Indian Peninsula Railway. Population (1901), 1,596. Chinchvad is famous as the residence of a shrine of the god Ganpati, who is said to have become incarnate in the person of a boy, namely Moroba, about the middle of the seventeenth century. The boy performed many miracles, and when he died was succeeded by a number of incarnations in the same family, known as the Devs of Chinchvad. Of these, Moroba's son Chintāman was the second living god. He once assumed the form of Ganpati to satisfy the jealousy of the great Vānī poet Tukārām, who prided himself on Vithoba's coming to dine with him. Tukārām called Chintāman by the surname of God or Dev, and this surname has passed to his descendants. Chintāman died a natural death and was succeeded by Nārāyan, the third Dev, who is reported to have changed into a bunch of jessamine flowers a dish of beef which Aurangzeb sent him to test his godhood. Aurangzeb was so pleased with the miracle that he is said to have made an hereditary grant of eight villages to the Dev family. The last Dev drew upon himself a curse by opening the grave of Moroba, who, disturbed in his meditations, told him that the godhood would end with his son. The son died childless in 1810, and with him ended the seventh generation of the Dev family. A boy named Sakhari, a distant relation of the deceased, was set up in his place by the priesthood to preserve the valuable grants to the temple.

The Dev family live in a mansion on the river built partly by Nāna Farnavīs and partly by Hari Pant Phadke, a Marāthā general of the end of the eighteenth century. Near the palace stand two temples each sacred to one of the departed Devs. The chief temple is dedicated to Moroba. It is a low, plain building with a square hall or *mandap* and an octagonal shrine. On the wall of the inner shrine is an inscription recording the building of the temple in 1659. On the outer wall of the temple of Srī Nārāyan, the third Dev, is another inscription according to which it was finished in 1720. A yearly fair attended by about 2,000 persons is held here in honour of Ganpati on the sixth day

of the dark half of the month of Mārgshīrsh (December–January), and lasts for a week. Chinchvād contains a school with 132 boys and 13 girls.

Chindwin District, Lower.—District in the Sagaing Division of Upper Burma, lying between 21° 48′ and 22° 50′ N. and 94° 16′ and 95° 39′ E., with an area of 3,480 square miles. In shape it is roughly a triangle, with its apex towards the north, and it is bounded on the north by the Upper Chindwin and Shwebo Districts; on the west by Pakokku District, from which it is separated by the Pondaung range; on the east by Shwebo District; and on the south by Pakokku and Sagaing. Its main natural feature is the CHINDWIN RIVER, which flows across the District from north-west to south-east, dividing it into two equal parts east and west, and bisecting its southern base. During the rains this river has a strong current and varies much in breadth; in places it is fully a mile across from bank to bank, while about 20 miles north of Monywa the channel is narrowed to about 60 feet by the Shwezaye defile, a serious obstacle to navigation during the highest floods. Elsewhere the stream is easily navigable throughout the year by the largest river-craft. In the west the double range of the Pondaung runs north and south. The northern half of the western boundary of the District follows the western, and the southern half the eastern ridge of the Pondaung, the border line crossing from one to the other at the watershed separating the Taungdwin stream in its narrow deserted upper valley from the sources of the Kyaw, which, flowing south, waters part of Pakokku District. Along the whole length of this western boundary the Pondaung maintains an average height of 4,000 feet. East of the Pondaung and between it and the Chindwin is the Mahudaung range, which enters the District from the Upper Chindwin, and runs generally southwards to about 15 miles from the southern boundary, its highest point being 2,305 feet above the sea. In the valley between this range and the Pondaung run northwards the Patolon, and southwards the North Yoma stream. The former traverses a sparsely populated valley, passes into the Upper Chindwin District, and eventually joins the Chindwin river just below Mingin. The latter, flowing south, bends round the southern end of the Mahudaung range and finally unites with the Kyaukmyet, a large affluent of the Chindwin which empties itself into the main stream almost opposite Monywa. Between the Mahudaung and the Chindwin river is a small hill range, about 25 miles in length, called the Thingadon, which is separated from the Mahudaung by the waters of the Thingadon *chaung*. The triangle formed by the Mahudaung range, the Chindwin river, and the southern boundary of the District is, in its northern part, rugged and hilly, the villages being confined mostly to the banks of the Chindwin and its small affluents.

Physical aspects.

The southern portion is much flatter and more evenly populated, being broken only in the south-east by sporadic hill masses, of which the most notable are the Powundaung, the Taungkomaik, and the Letpadaung in the Salingyi township, each about 1,000 feet in height, and the Pagyidaung in the Pale township. The first named is remarkable on account of the cave temples it contains. This southern plain is watered by the Kyaukmyet *chaung* referred to above, and by the Nga Kon Yama stream, which forms the greater part of the southern boundary of the District. The country east of the Chindwin is undulating, and is bisected by the low Nwegwedaung range, which sends out small streams westwards to the Chindwin and eastwards to the Mu. This latter river bounds the District for about 20 miles near its south-eastern corner, and is navigable by country boats throughout the year. The only tributaries of the Chindwin of any considerable size on the eastern side are the Inbaung and Weka *chaungs* in the extreme north of the District, which rise in Shwebo and unite 3 miles before joining the main stream.

Little is known of the detailed geology of the District. The rocks are entirely of Tertiary age. In the extreme west Nummulitic limestone and shales are exposed. These are followed to the east by miocene clays and sandstones, and these again by the soft sandstones which cover the greater part of the District and belong to the pliocene period. An interesting feature is the occurrence of several explosion craters—rounded or oval hollows, sometimes containing lakes. They may extend, as at Leshe, to a width of over a mile, with depressions of 100 to 200 feet bordered by precipitous margins. The low ridges of fragmentary rocks, and the scattered blocks lying about the plain, are probably the result of ejection by volcanic action.

The chief plants found are the *okshit* (*Aegle Marmelos*), *thanatka* (*Murraya exotica*), *tamaka* (*Melia Azadirachta*), *tawtamaka* (*Melia birmanica*), and *tanaung* (*Acacia leucophloea*); and among the flowers may be mentioned *shwenwe-pan* (*Cassytha filiformis*) and *migyaungnwepan* (*Derris scandens*). Further details regarding the vegetation will be found under the heads of Agriculture and Forests.

The characteristic wild animals are elephants, leopards, *thamin* (brow-antlered deer), *tsine* or *hsaing* (*Bos sondaicus*), *daye* (hog deer), and wild hog. Elephants are found in the eastern jungles, the other wild animals all over the District. Tigers are rare. In the cold season water-fowl swarm in abundance on the sandbanks in the Chindwin and in the *jhīls* in its neighbourhood.

The District is situated in the dry zone, and the heat during the months of March, April, and May is considerable; the climate during the monsoon, on the other hand, is breezy and moderate, and the winter is delightful. The maximum temperature at Monywa averages 81° in

December and 97° in May, and the minimum 59° in December and 81° in May, while temperatures as low as 52° and as high as 106° have been occasionally registered. The average mean for the year is 83°. Rainfall is registered at Monywa, Pale, Budalin, and Kani. The total fall for the year 1900–1 recorded at these stations was 32, 45, 43, and 52 inches respectively. As elsewhere in the northern portion of the dry zone, the rainfall increases towards the north.

History.

The Chindwin country was entered by British troops in 1886, and during the early part of 1887 a battalion of military police arrived in the District, and civil police were enlisted with a view to its pacification. At first, the present Upper and Lower Chindwin Districts formed a single Deputy-Commissioner's charge, with head-quarters at Alon; but in 1888 the District was split up into two, and Monywa was eventually made the head-quarters of the southern portion. In April, 1887, the rebel Hla U, who had been practically ruling the Ayadaw and Kudaw townships on the Shwebo and Sagaing borders, and committing numerous dacoities during the year, was killed by one of his own lieutenants at Wadawma. On the other side of the river trouble was greatest around Pagyi (now the Salingyi township), where three risings took place, two in 1887 and one in 1888. In the first outbreak two attacks were made on a dacoit leader Po Tok, who had killed the Kani *wun*; in the first engagement a British officer and some sepoys were wounded, in the second Po Tok was presumably killed near Kyadet, as he was never heard of again. The second disturbance was late in 1887, and was headed by a man who styled himself the Shwegyobyu prince, assisted by two dacoit leaders named Nga Saga and Nga Pyo, who afterwards gave much trouble. The rebels were attacked at Chinbyit by a British force consisting of a few mounted men with three officers, two of whom, Major Kennedy and Captain Beville, were killed. A force of 70 rifles came up later, but the three leaders managed to escape, leaving 40 dead. Several other dacoits of mark were captured in the operations under the late General Penn Symons, and the establishment of civil police guards at Salingyi and elsewhere helped to keep the District quiet for a time. An attempted rising in 1888 was quashed by the arrest at Monywa, and the subsequent execution, of a suspect known as the Nagabo prince, who was arranging a rebellion with the Shwegyobyu prince, Nga Saga, and Nga Pyo. The three Bos, however, really did rise in the Yaw country in 1889, and the rebellion acquired serious dimensions; but the rebels were dispersed at Gangaw by a force of 200 men, the Shwegyobyu prince fled to the Chin Hills, Nga Saga was killed, and Nga Pyo slain by a fellow leader. With the suppression of this rising the peace of the District was assured.

Many celebrated pagodas are situated in the District. One of con-

siderable note is the Alaungdaw Kathapa, built on the watershed between the Patolon and Yoma streams in the Kani township, in memory of the Buddhist monk who is said to have conducted the first Synod held after the Buddha's death. A large number of pilgrims from different parts of Burma visit it every year. Other notable shrines are the Paungwa, the Shwekuni, the Shwegu, the Sutaungbyi, the Shwemyindin, the Shwezigon, the Shinbyuyatkyi, and the Ingyindaung pagodas. Powundaung, a hill about 3 miles east of Lengauk village in the Salingyi township, is noted for its numerous cave temples carved out of sandstone rock. There are said to be 444,444 images of Buddha of different sizes in these recesses.

Population.

The population increased from 233,316 in 1891 to 276,383 in 1901. Its distribution in the latter year is shown in the following table:—

Township	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Budalin	451	...	196	55,447	123	+ 9	9,837
Monywa	487	1	297	90,164	185	+ 25	17,118
Kani	1,788	...	256	48,717	27	+ 18	8,712
Salingyi	296	...	211	50,814	172	+ 16	10,707
Pale	458	...	452	31,241	68	+ 22	5,978
District total	3,480	1	1,212	276,383	79	+ 18	52,352

The only town is MONYWA, the head-quarters of the District. The density of population is identical with the average for the whole of the dry zone of Upper Burma. Within the District the density varies considerably from tract to tract; the Salingyi township, on the west bank of the Chindwin river in the south of the District, is one of the most thickly populated townships of Upper Burma, while in the Kani township in the north-west the inhabitants are as scattered as in some of the wildest areas of the Province. The Census of 1901 showed that the Lower Chindwin had a higher proportion of females than any other District of Burma. This large excess was probably due to a temporary exodus of males to the harvest fields of more fertile Districts. There has been very little immigration into the Lower Chindwin from the rest of Burma. Buddhists form 99 per cent. of the population, and outside Monywa hardly anything is spoken but Burmese.

The Indian residents of the District are all immigrants, mainly from the Punjab, Bengal, the United Provinces, and Madras, and include 800 Musalmāns and 900 Hindus. The great majority of the population consist of Burmans, who in 1901 numbered 274,200, or more than 99 per cent. of the total. Of indigenous non-Burmans there are none,

and on the whole the Lower Chindwin may be looked upon as one of the most typically Burman Districts in the Province. The number of persons wholly dependent on agriculture in 1901 was 165,624, or about 60 per cent. of the total population.

There is only one mission (a Wesleyan one), and the total number of Christians in 1901 was only 188, of whom 111 were natives.

Agriculture.

The principal soils are sand, clay, and silt. Sandy earth of poor crop-bearing capacity predominates; clay is found over many of the levels, and belts of alluvial soil stretch along the banks of the larger watercourses. Throughout the District primitive agricultural methods are still followed. The land is as a rule prepared with the ordinary *tun* or harrow, while for the alluvial *kyun* or *kaing* cultivation the *te* or plough is used.

The area cultivated in 1891 was 280 square miles, which rose to 542 square miles in 1901. The main agricultural statistics for 1903-4 are shown, in square miles, in the following table:—

Township.	Total area.	Cultivated.	Irrigated.	Forests.
Budalin	451	182	...	2,072
Monywa	487	191	...	
Kani	1,788	32	1.25	
Salingyi	296	147	2.63	
Pale	458	55	0.64	
Total	3,480	607	4.52	2,072

The cultivated area is for the most part situated in the townships on the east bank of the Chindwin, and in the Salingyi township adjoining the western bank of that stream. Of the total cultivated area, rice occupied 99 square miles in 1903-4. Nearly half the entire rice crop, and almost the whole of the hot-season rice (12 square miles), is grown in the Salingyi township, where facilities for irrigation are greater than elsewhere. The chief crop is, however, not rice but *jowār*, which covered 281 square miles; and even the area under sesamum (125 square miles) was larger in 1903-4 than that devoted to rice. Gram is grown on 7,800 acres, mostly in the Monywa township, and beans and the like on 34,200 acres. A considerable area (12,400 acres) is under cotton, which does well in the *ya* or upland of the Monywa, Budalin, and Salingyi townships. Tobacco is cultivated mainly in Pale and Monywa, covering an area of 1,400 acres. The garden-cultivation is exceptionally small (only 1,900 acres), and consists mainly of plantain groves. The average area of a holding is 4 acres.

No advances under the Land Improvement Loans Act have been made, but loans under the Agriculturists' Loans Act are granted every

year, according to the requirements of the season, and are freely sought after. In 1903–4 a sum of Rs. 21,700 was so advanced to cultivators. Very little has been done in the way of introducing new staples.

Cows, sheep, goats, and ponies are bred all over the Lower Chindwin, not, however, as a rule, for gain, but to meet local requirements. No special grazing-grounds are allotted. The cattle are allowed to rove at will through the jungles, where pasturage is sufficient during the greater part of the year; but difficulties in regard to fodder spring up in the dry season, when the cultivators are obliged to fall back on the *pyaung* (*jowār*) stalk kept in reserve for their live-stock. In seasons of prolonged drought cattle suffer a great deal from want of water.

There are no 'major' or 'minor' Government irrigation works of any kind, but a small area is watered from tanks and canals dug by private individuals in the Yinmabin subdivision. The area thus supplied in 1903–4 was 3,000 acres. No important fisheries exist, but fishing is carried on in the bed of the Chindwin and in the *jhīls* adjoining its banks. The fishery revenue in 1903–4 amounted to Rs. 8,100.

Forests.

The limits of the District are conterminous with those of the Lower Chindwin Forest division. Most of the forests lie in the hills to the west, and may be roughly divided into the following classes: teak-bearing forests, *indaing* forests with teak, *indaing* forests with no teak, forests with pines. In the first class *pyingado* (*Xylia dolabriformis*) is the commonest tree. In the second, *padauk* is also plentiful, intermixed largely with jungle woods of every variety. In the third, *in* (*Dipterocarpus tuberculatus*), *thitya* (*Shorea obtusa*), and *ingyin* (*Pentacme siamensis*) predominate, while *dahat* (*Tectona Hamiltoniana*) is also found. The fourth class consists of isolated patches of pines occurring in places along the summit of the Pondaung. No special plantations of trees of economic value have been formed. Among minor products, cutch, bamboos, and canes yield the largest revenue; but small sums are also realized on *indwe*, *pwenyet*, and *shaw* (*Sterculia sp.*) fibre. In 1903 the District contained 647 square miles of 'reserved' forests, the most important being the three Patolon Reserves (318 square miles), situated in the basin of the Patolon *chaung* in the north of the District. The gross forest revenue in 1903–4 was Rs. 40,600.

Minerals.

Sulphate of copper has been found in the Letpadaung hills in the Salingyi township, and a licence to prospect for it has been granted recently. Gold occurs at Chinbyit in the Pale township; garnets and tourmaline exist near Salingyi, and petroleum at Kine, in the Pale township, and at the foot of the Mahudaung range in the Kani township. Besides these minerals, clay, laterite, and gravel are found all over the District, and limestone in small quantities in the hills. In 1900 prospecting licences for petroleum

were granted to several individuals, two of whom started boring for oil, but met with no success and abandoned their enterprise. There have been numerous applications of late for prospecting licences for earth-oil in Kani, but most of them have not been favourably entertained. The Burma Oil Company has, however, obtained a licence to prospect over an area of 20 square miles in that township, and has already started operations. Salt is manufactured in Salingyi by boiling the water from brine-wells.

Trade and communications.

A little wood-carving is done at Alon, and there are potteries at Ayadaw and Yedwet near the Shwebo border, where pots for drinking and cooking purposes are manufactured. Brass gongs, spoons, cups, &c., are turned out at Indaing. The Lower Chindwin gongs have achieved considerable local notoriety, and, a few years ago, the annual value of the trade in these articles was estimated at about Rs. 23,000. Burmese saddles and bridles are manufactured at Kyehmon and Monywe, near the Sagaing border; *das* are forged at Baunggya on the Mu; silk-weaving is carried on at Kothan, though on a small scale; and slippers are made at Kanbya. A great deal of lacquer-ware in the form of trays, bowls, and other utensils is produced at Kyaukka in the Monywa and Maungdaung in the Budalin township. The Kyaukka lacquer-ware finds a ready market in Lower Burma. Mats and *pas* (baskets with covers) are woven in the Yinmabin subdivision. With the exception of the gongs and the lacquer-ware, the articles named are produced mostly for local use. A saw-mill was started about half a mile from Monywa town on the left bank of the Chindwin in 1900, but has not proved a financial success and is not worked regularly. A rice-mill, which was opened in 1901, has similarly failed to attract local custom.

The Lower Chindwin is an almost wholly agricultural District, and its chief exports are pulse, jaggery (unrefined sugar), and *jowār*, of which the first two are sent in large quantities to Lower Burma. Besides these agricultural commodities cutch is exported, as well as brass and lacquer-work. The principal imports are *ngapi*, salt, salted fish, and goods of foreign manufacture. Paddy comes in from the Upper Chindwin and Shwebo Districts, and rice from Lower Burma. The exports and imports are for the most part conveyed by means of country boats and the Irrawaddy Flotilla Company's steamers, and by rail, the only important exception being the paddy from Upper Chindwin, which comes on rafts down the Chindwin to Monywa, where it is distributed to the villages inland. Paddy from Shwebo District is brought in by the cart-road connecting Ye-u with Monywa. Most of the *ngapi* and salted fish comes from the delta Districts of Lower Burma in country boats, while salt is imported from Rangoon by both rail and steamer. The main trading centres are Monywa, and Saton, Kyauk-

myet, and Ywashe in the Yinmabin subdivision on the western bank of the Chindwin. Most of the people engaged in trade are Burmans and Chinamen. Natives of India do business on a small scale at many of the bazar towns and villages.

The Sagaing-Alon railway runs along the western border of the Monywa township, with its terminus at Alon, 7 miles north of Monywa, and has four stations in the District. Eight roads, with a total length of 146 miles, are kept up by the Public Works department: namely, Monywa towards Ye-u, in Shwebo District, 32 miles; Monywa towards Myinmu, in Sagaing District, 11 miles; Monywa to Magyizauk, 36 miles (26 unmetalled); Saton to Kyadet, 17 miles; Tandaw, opposite Monywa, to Yinmabin, 15 miles; and three shorter roads. The District fund maintains about 350 miles of unmetalled tracks connecting the towns and more important villages.

Weekly services of Government and Irrawaddy Flotilla Company's steamers on the Chindwin touch at Saton, Monywa, Alon, and Kani. Communications are further maintained by eleven ferries on the Chindwin river and three on the Mu.

Famine.

The rainfall is fickle and untrustworthy, and few years pass without some slight threatenings of local drought. Towards the end of 1891 failure of rain brought about a serious scarcity of food-grains in the then existing Monywa, Ayadaw, and Kudaw townships, as well as in a portion of the Kani township, and it was found necessary to open famine relief works, which involved an expenditure of about Rs. 90,000. The distress was in places severe, extending over an area of 75 square miles, and affecting a population of 30,000, while relief operations lasted for 45 weeks. The highest daily attendance on the works was 4,332 persons, and the total number of units relieved from the beginning to the end of the period of scarcity was 362,866. The failure of crops is said to have driven between 2,000 and 3,000 families out of the District. The efforts of the local officials were, however, so successful that, judging from the census returns, the District had recovered from its effects by 1901. There has been no serious harvest failure since 1891.

Administration.

The District is divided for administrative purposes into two subdivisions: Monywa, to the east of the Chindwin, comprising the Budalin and Monywa townships; and Yinmabin, for the most part to the west of the river, comprising the Kani, Salingyi, and Pale townships. These are in charge of the usual executive officers, under whom are 804 village headmen, 511 of whom receive no commission on their revenue collections. Kani was, under Burmese rule, the head-quarters of a *wun*, and the present township officer still retains the courtesy title of *wun* of Kani. The District, with the Chin Hills and the Upper Chindwin District,

forms the Chindwin Public Works division, with head-quarters at Monywa.

The subdivisional and township officers are civil judges in their respective charges, the Monywa township officer being assisted in his civil work by the treasury officer, who is also head-quarters magistrate. The people resort readily to the civil courts, and as the area of private land is comparatively extensive, the number of suits for the possession of property is large. The criminal courts are presided over by the executive officers, and crime is of the usual type.

As in other parts of Upper Burma, the main source of revenue under native rule was *thathameda*, levied at the rate of Rs. 10 a household. It was assessed by specially selected village elders (*thamadis*), and shortly before annexation brought in about 2½ lakhs annually. The land revenue proper was then insignificant in amount. It was derived only from state lands, and represented a fraction of the produce valued at current market rates. The other sources of revenue, such as customs, brokerage, and the like, were mostly given up on annexation, excise being levied in their place. On the introduction of British rule the land revenue proper and *thathameda* were collected as before, the former being levied at the rate of one-third of the annual produce of certain lands belonging to royal servants and their descendants and a few others. The direct assessment of land revenue was introduced in 1902–3. A summary settlement was made, and acreage rates were sanctioned in the Monywa and Budalin townships, with the result that the land revenue, which in 1900–1 had been only Rs. 8,200, rose in 1903–4 to more than a lakh and a half, this increase being counterbalanced, however, by a corresponding reduction in the *thathameda*, which fell from 5·7 lakhs to 4·6 lakhs. The whole of the Salingyi township and parts of the Pale and Kani townships were placed under supplementary survey in 1904, and acreage rates have now been sanctioned. According to the present settlement, the rates on non-state land vary from Rs. 1-4 to Rs. 1–8 on rice lands, from 6 to 8 annas on *ya* or upland crops, and from 12 annas to Rs. 3–4 on *kaing* or alluvial crops. On state land the range is from 6 annas on *ya* land to Rs. 4–8 on *kaing* cultivation. The greater part of the District falls under the category of *kaing* or *ya*. Regular settlement operations are now in progress.

The following table shows the growth of the revenue since 1890–1, in thousands of rupees:

	1890-1.	1900-1.	1903-4.
Land revenue . .	5	8	1,59
Total revenue . .	. .	6,46	6,70

Thathameda is still the main source of revenue.

The income of the District fund for the provision of roads, *dāk*-bungalows, &c., amounted in 1903-4 to Rs. 13,000, the main item of expenditure being Rs. 10,300 on public works. The District and the MONYWA municipal fund are the only two Local funds.

Under the District Superintendent of police are two subdivisional police officers, stationed at Monywa and Yinmabin. The strength of the civil police force is 2 inspectors (in charge of the subdivisions), 9 head constables, 30 sergeants, and 326 constables. There are 9 police stations and 12 outposts. Monywa is the head-quarters of the Chindwin military police battalion, 1,130 strong. Of these, 585 are stationed at Monywa and 30 at Yinmabin; the rest are distributed in the Upper Chindwin District. The commandant and two assistant commandants are at the battalion head-quarters, and a third assistant commandant at Kindat. The District jail at Monywa has accommodation for 118 persons. Wheat is ground by its inmates for the military police, and a little carpentry is done for Government departments and for sale to the public. The produce of the jail garden is used for the prisoners' food; what is not required for this purpose is sold.

The proportion of literate persons in 1901 was 41 per cent. in the case of males, and 2 per cent. in that of females, or 19 per cent. for both sexes together. In view of the fact that the District contains no backward hill tribes and comparatively few natives of India, the figure is somewhat low for Burma. The attitude of the local ecclesiastics towards education may have something to do with this. There are indications that the *pongyis* view the Government methods of teaching with special disfavour, and that the local educational staff have had more than ordinary difficulty in combating this feeling. It appears further that the people, who are largely agriculturists, evince no desire to have their children educated to a high standard, though they are willing enough to send their sons to the Government survey school. There is only one Anglo-vernacular aided school, the English Wesleyan Mission School. The number of aided vernacular schools in 1903-4 was 139. The District contains 3 secondary, 137 primary, and 769 elementary (private) schools. The number of pupils was 5,162 in 1890-1, 8,344 in 1900-1, and 9,961 (including 763 girls) in 1903-4. The expenditure on education in the last year was Rs. 8,900, towards which Provincial funds contributed Rs. 7,100, and fees Rs. 1,800.

In addition to a military police hospital with 40 beds, there is a civil hospital at Monywa with 32 beds. In 1903 the number of cases treated was 9,406, including 435 in-patients, and 151 operations were performed. The income of the civil hospital was Rs. 5,400, made up of Rs. 2,500 from Provincial funds, Rs. 2,400 from municipal funds, and Rs. 500

from subscriptions. A small dispensary has recently been opened at Yinmabin.

Vaccination is compulsory within the limits of the Monywa municipality. In 1903–4 the number of persons successfully vaccinated was 9,387, representing 34 per 1,000 of the population.

Chindwin District, Upper.—District in the Sagaing Division of Upper Burma, lying between 22° 36′ and 26° 22′ N. and 93° 58′ and 96° 20′ E., with an area of 18,590 square miles. It takes its name from the Chindwin river, which flows through it from north to south, and is the largest District in Burma. Geographically, the District contains two Shan States administered by their Sawbwas, ZINGKALING HKAMTI and HSAWNGHSUP, over which the Deputy-Commissioner exercises a certain amount of control. It is bounded on the north by the Taro and Hukawng valleys, which encircle the head-waters of the Chindwin; on the south by the Pakokku and Lower Chindwin Districts; on the east by Myitkyinā, Kathā, and Shwebo; and on the west by Assam, Manipur, and the Chin Hills. In shape it is an irregular parallelogram, roughly 250 miles long and 50 broad. Its mountain ranges are grouped into two main systems, west and east of the Chindwin river. In the extreme north-west of the District, on the borders of the Zingkaling Hkamti State, are the outlying mountains of the great pile of upland which separates Burma from Assam. In this group is the highest peak in Burma, Sarameti or Nwemauktaung (12,557 feet), often capped with snow. From the main mass branches a series of more or less parallel ridges about 2,000 to 3,000 feet in height, which run in a southerly direction right down into Pakokku District. In the north these ranges are generally known collectively as the Yoma, farther south they are called the Pondaung. For a considerable distance within the District they are skirted on their eastern flank by the Chindwin river, which they separate from the Kale and Kabaw valleys. The latter, sloping gently away from each other north and south, form one long, very fertile depression, 150 miles in length and about 8 miles in breadth, locked between the Yoma and the loftier ranges of Manipur and the Chin Hills. The hill system west of the Irrawaddy starts in the extreme north of Burma from the highlands separating the basins of the Irrawaddy and the Chindwin, and runs in a south-south-west direction, dividing the Upper Chindwin from Kathā and Shwebo Districts. It consists of a range of abrupt hills, averaging about 1,000 feet in height, but rising to over 5,000 feet in the north of the District in an eminence known as the Taungthonlon, or 'three mountains.' Its spurs extend towards the Chindwin over the wide intervening valley, cutting it up into well-watered tracts, which give the District, and especially the southern portion, its richness in hill and river scenery. The CHINDWIN RIVER runs southwards throughout the

Physical aspects.

length of the District, entering it at the *kyaukse* ('stone weir'), a barrier of rocks in the extreme north that prevents access by boat to the Hukawng valley. During its course through the District it is joined by several streams, of which the most important are the Yu and the Myittha on the west and the Uyu on the east. The Yu river, which is composed of several affluents rising in the Manipur plateau, and draining the Hsawnghsup State, flows in a southerly direction till it reaches 24° N., when it suddenly bends eastwards and pierces the Yoma, to join the Chindwin 25 miles above Kindat. South of the Yu is the Myittha river, which, running in a northerly direction from Pakokku District, turns abruptly east at Kalemyo, and empties itself into the Chindwin at Kalewa. The Uyu river rises in Myitkyinā District, flows past the jade-mines, enters the Upper Chindwin District at its extreme north-east corner, and winds through a sparsely populated valley to meet the Chindwin at Homalin. The vast tract in the angle formed by the Uyu and the Chindwin is for the most part a desolate waste of hills. Near Mingin in the extreme south of the District the Chindwin is joined by the Patolon, which flows northwards from the Lower Chindwin District.

All the rocks which occur belong to the Tertiary system, but little is known regarding the details of the geology of the District. Nummulitic (eocene) limestones and shales occur west of the river, followed to the east by shales and sandstones of miocene age. East of the river the ground is occupied by Upper Tertiary (pliocene) sandstones. There is a coal-bearing area in the west. The recent sandstone is of brown or yellow tint, and gives way easily to the combined action of rain and air. The older is of a bluish-grey colour, finely grained, and of a hardness which would render it an exceedingly good material for building purposes. Conglomerate occurs in the country between the Myittha and Yu rivers, and probably elsewhere. It consists chiefly of rolled pebbles of white quartzite, among which are mixed in smaller quantities blood-red jasper and black hornstone. It does not disintegrate so readily as the sandstone, and forms a kind of embankment or escarpment along the western side of the Kale range. Clay and shales occur in the coal-bearing area. The coal is found in beds of half an inch to 12 feet in thickness. The greater number of seams occur in the valley of the Mawku stream, in which Dr. Noetling estimates that there are not less than 40 seams with a total thickness of 80 feet.

The District is richly forested and timber abounds in infinite variety. The most characteristic trees are the *in* (*Dipterocarpus tuberculatus*), the teak, the *ingyin* (*Pentacme siamensis*), and the stately *kanyin* (*Dipterocarpus alatus*). Bamboos of every kind abound, the graceful *tinwa* (*Cephalostachyum pergracile*) being perhaps the most characteristic species; and orchids, ferns, wild roses, and other wild flowers are found everywhere.

The elephant, rhinoceros, tiger, leopard, bison, *tsine* or *hsaing* (*Bos sondaicus*), bear, and *sāmbar* are all to be met with, but comparatively little is really known of the vast areas of jungle that the District contains. The result of the operations of the Khedda department in the adjoining District of Kathā appears to indicate that the number of elephants in the Upper Chindwin is very considerable. A handsome variety of the tiger-cat is occasionally met with. Peafowl abound throughout the District, being especially plentiful in the lower reaches of the Uyu, and both the peacock pheasant and the silver pheasant are found in the north.

As might be expected in a region lying between four degrees of latitude, there is a noticeable difference of temperature between the north and the south of the District; but observations have hitherto been made only at Kindat, where the thermometer averages 70° to 95° in the hot season and 55° to 80° in the cold. The highest records have been 108° in May, 1897, 106° in May, 1898, and 107° in May, 1899, while in the extreme north the minimum, even in the plains, is not far off freezing-point in the winter. The portions of the District bordering on the Chindwin are fairly healthy, but the inland parts, and in particular the Kale, Kabaw, and Uyu valleys, are abnormally malarious and pestilential.

The rainfall varies from an average of 50 inches at Mingin, bordering on the dry zone, to 92 inches at Homalin in the north and at Tamu among the hills on the western border. As a rule the supply is plentiful and timely, but in 1891–2 the rainfall all over the District was neither, and at Mingin prices rose to more than double the ordinary rate; 1896–7 was another bad year of scanty rainfall; the Chindwin also failed to rise, and irrigated crops perished accordingly. There was, however, no famine. Floods are rare; but in October, 1901, the Yu river rose to an unprecedented height in the Kabaw valley, and destroyed five villages, happily without loss of life. In 1905 there was an exceptional rise in the Chindwin.

History.

Under Burmese rule the Upper Chindwin was administered by a *wun*, known as the Khampat *wun*, who had his head-quarters at Kindat, then a military post, and exercised very extensive powers. On the outbreak of war in 1885, three English assistants of the Bombay Burma Trading Corporation were murdered on the launch *Chindwin* near Mingin, and shortly after this the Political Agent of Manipur marched to Kindat through the Kabaw valley and rescued two other agents of the company. In 1886 the Deputy-Commissioner steamed up the river, meeting with some slight resistance at Balet and Masein, and received the submission of the Hsawnghsup Sawbwa. A few posts were established on the river, but nothing was done on this occasion to occupy the interior except in the Kabaw

valley, where Tamu continued to be held by British troops from Manipur. At first it was intended to hand over the Kabaw valley to Manipur, but the people objected so strongly to the proposed measure that the project was abandoned. Except in the Kabaw valley itself, which was finally pacified in 1887, no organized resistance was shown to British administration in the Upper Chindwin District, and dacoits as a rule gave less trouble here than elsewhere. In 1886, however, Mr. Gleeson, Assistant Commissioner, was treacherously murdered at Mingin; and in 1888 Nga Saga, a follower of the Shwegyobyu pretender, headed an outbreak in the Mingin subdivision, which was speedily quelled. In the latter year the Upper and Lower Chindwin, which had been a single District administered from Alon, were divided into two Districts, with head-quarters at Kindat and Monywa respectively. For a long time after annexation the neighbourhood of the Kale valley was much disturbed. At the time of the occupation of Upper Burma, the Sawbwa of the Shan State of Kale was at war with his nephew Pa Gyi; and the Siyin, Sokte, and Kanhow Chins took advantage of this strife of the kinsmen to raid the Kale and Kabaw valleys, destroying many villages and killing or carrying off their inhabitants. Pa Gyi was appointed Sawbwa, but it was not long before he started intriguing with the Shwegyobyu pretender, who had taken refuge with the Tashon Chins. The Siyins and Kanhows were severely punished in the first Chin expedition in 1888–9, but did not cease their raids on the Kabaw valley. (For further action taken against the Chins see CHIN HILLS.) In the Wuntho rebellion of 1890–1, the rebel Nga Le marched down from the Taungthonlon hill to Homalin, where he burnt the courthouse, and called on his relation, the Hsawnghsup Sawbwa, to assist him. The Sawbwa, however, remained actively loyal, and ranged his troops on the opposite bank at Kettha, and Nga Le was shortly afterwards hunted out of the District. Pa Gyi was deported in 1891 for complicity in this rebellion and for his intrigues with the Shwegyobyu, and the Kale State from that time forward became part of the District. In the meantime British influence was being extended in the north of the District; a military police post was set up at Tamanthi, 50 miles above Homalin on the Chindwin, in consequence of raids by Chins in the neighbourhood; and punitive expeditions were dispatched in 1892 and 1894 against various Chin tribes inhabiting the hills on the Assam border to the west of the Homalin township. In 1896 boundary pillars were set up dividing off the unadministered Chin tract in the north-west of the District; and since then no raids have been committed, though the Kaswa Chins of Piya in the north have been blockaded since 1901 for cattle-lifting on the Chindwin.

The population, excluding the quasi-independent Shan States of Hsawnghsup and Zingkaling Hkamti, was 111,533 in 1891 and 145,032

in 1901. Including these two States it was 154,551 in 1901. Its distribution in the latter year is shown in the following table:—

Population.

Township.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Kindat	1,715	1	117	13,946	8	+ 20	4,510
Tamu	960	..	48	5,264	5	+ 19	1,533
Masein	1,334	...	156	14,365	11	+ 14	4,392
Kalewa	184	...	36	3,535	19	} + 5	} 4,728
Kale	816	...	94	10,691	13		
Mingin	1,311	...	141	19,941	15	− 5	6,271
Kyabin	800	...	90	9,954	12	+ 36	3,091
Paungbyin	2,719	...	268	26,409	10	+ 38	7,428
Homalin	2,524	...	166	17,624	7	+ 60*	3,594
Maingkaing	4,665	...	248	23,303	5	+ 111*	4,390
Total British territory	17,028	1	1,364	145,032	9	+ 30	39,937
Hsawnghsup State	579	.	84	7,471	13	..	1,986
Zingkaling Hkamti State	983	...	14	2,048	2	...	468
District total	18,950†	1	1,472	154,551	8	...	42,391

* The population of the Homalin and Maingkaing townships was only estimated in 1891.
† Area figures revised since the Census of 1901.

The only town, KINDAT, is really nothing more than a large village containing 2,417 inhabitants. The whole of the District is sparsely populated, the density decreasing towards the north. The apparently rapid increase of population since 1891 is due to a certain extent to non-enumeration in that year of the wilder tracts, and to the generally disturbed state of the country on the Kathā borders that had been brought about by the Wuntho rebellion. There are nearly 2,000 Animists, and about the same number of Hindus and Musalmāns, but most of the population are Buddhists. Two-thirds of the people talk Burmese, and the majority of the remainder are Shan speakers.

Rather more than half the total population is Burman. The Mingin subdivision in the extreme south is almost exclusively, and the Kindat and Kale subdivisions very largely, Burman. Shans come next to the Burmans in point of numbers, with a total of 67,100. They inhabit the two Shan States and the Homalin subdivision in the extreme north. There were 1,600 Chins in 1901, who are found in the neighbourhood of the Kabaw and Kale valleys and in the west of the Homalin township. A few Kachin villages lie east of the Chindwin in the semi-independent State of Zingkaling Hkamti, but they do not acknowledge the

suzerainty of the Sawbwa, who was advised not to attempt to enumerate them in 1901. Their total was estimated at 188. Elsewhere in the District nearly 200 Kachins were found, so that the aggregate of Kachins may be taken at a little under 400. The Indian immigrants numbered 2,300 at the last Census, comprising 1,100 Hindus and 800 Musalmāns, a good many of whom were military policemen. Most of the rest are confined to Kindat, Kalewa, and Kalemyo. The population directly dependent on agriculture in 1901 was 104,195, or 67 per cent. of the total. Of this number 12,149 were supported by *taungya* (shifting) cultivation.

There are no missionary agencies at work and the number of the Christians (234) is small. Altogether, 200 are natives of India.

Agriculture.

Apart from a few large villages where Indian traders congregate, the District is agricultural throughout. The population is poor; in some parts cultivators have to pay high rents to landlords, and in others, though the out-turn is good, they are unable to bring their crops to market owing to the lack of communications. A large export trade in paddy is carried on with Monywa, Pakokku, and Myingyan, but the profits go into the hands of middlemen. The condition of the cultivators of state land is distinctly better than that of cultivators of private land, for the latter are usually sub-tenants, pay a heavy rent, and are indebted to their landlords. In some parts, however, state land has got into the possession of non-agricultural landlords, who take as heavy a rent from their tenants as the owners of private lands. The soil in the valleys, to which regular cultivation is confined, is of alluvial formation, and is often irrigated by perennial springs. The upper layers on the slopes of the hills, where the cultivation of hill-clearings (*taungyas*) is carried on, consist mainly of decayed vegetable matter. Towards the south and over most of the country east of the Chindwin, the hills are barren and unsuited to *taungya* cultivation. The standard crop is wet-season rice, but *mayin* is also common. Wet-season rice is sown in July and August, transplanted in August and September, and reaped in January. In the Mingin subdivision, where the rainfall is more precarious than elsewhere, all these operations are carried on one or two months in advance of the rest of the District. Dry-season rice is sown in December or January, transplanted in February into depressions from which the water is retreating, and reaped in May. Buffaloes alone are used for working the land, and the harrow takes the place of the plough everywhere. For *taungya* cultivation a piece of forest land on the slope or hollow of a hill is chosen; all the undergrowth is burnt and the ground harrowed; the trees are then girdled, and their branches lopped off and piled in heaps. In May they are burnt and the ashes distributed over the fields, and the seeds sown broadcast when the first rains commence. The

crop is reaped in October. After three years the soil is exhausted and the cultivator moves on to a fresh clearing.

The following table shows the main agricultural statistics for 1903–4, in square miles:—

Township	Total area	Cultivated.	Irrigated.	Forests.
Kindat . .	1,715	21		
Tamu . .	960	16		
Masein . .	1,334	26		
Kalewa . .	184	11		
Kale . .	816	34	31	8,230
Mingin . .	1,311	37		
Kyabin . .	800	18		
Paungbyin	2,719	40		
Homalin . .	2,524	32		
Maingkaing .	4,665	29		
Total	17,028	264	31	8,230

Rice is the principal crop in both the hills and the valleys. In 1903 4 it occupied 251 square miles, of which 24 were *mayin*. Peas, beans, tobacco, sesamum, and cotton are cultivated for home consumption, but occupy quite an inconsiderable area. Tea is grown in four or five villages on the Chindwin north of Homalin, over an area which in 1903 4 amounted to nearly 1,400 acres. The seed is sown at the end of the rains and the plants mature after six years. Picking is carried on at the beginning of the rainy season, only the new leaf being plucked. After picking, the tea leaves are boiled for about fifteen minutes, and then rolled and crushed by hand. The resultant pickle is then rammed tight into hollow bamboos or bamboo baskets, in which it is sent down the river. The trade is declining yearly. A few years ago large quantities of tea seed were bought by Assam planters and exported via Manipur; but the trade has entirely ceased, because, it is said, one or two consignments went bad. Cultivation is extending rapidly, particularly in the Kale valley, which is recovering from Chin raids, and is now on the high road to its ancient prosperity. Extensions are encouraged by the low rate of assessment on state land—one-tenth of the produce, which is much below the average rent paid by tenants of private lands to their landlords. In the Mingin subdivision practically all the available land has been brought under cultivation, and further expansion is impossible. The District as a whole, however, could easily support ten or twenty times its present population.

No new kinds of seed have been introduced, the people being fully content with such varieties as they possess and chary of adopting agricultural novelties. No loans have yet been granted under the Land Improvement Loans Act, but advances have been made freely to agriculturists for the purchase of buffaloes under the Agriculturists'

Loans Act. These advances are eagerly sought after, and very rarely abused. The average amount lent during the six years ending 1904 exceeded Rs. 15,000 per annum.

Buffaloes are bred and are universally used for cultivation; they are of a good type, and it is rare to see one out of condition. In the large villages natives of India keep herds of cows for milking purposes, but, unlike the cattle owned by Burmans, the beasts are usually in wretched condition. Ponies are not common, and are mostly small and weedy; and sheep and goats are rare. There is abundant grazing everywhere, and the fodder question is never likely to be acute.

The only form of irrigation practised is the diversion of the contents of the shallower streams over the adjoining fields by means of small channels. The area thus dealt with amounted to 31 square miles in 1903–4. Ordinarily, however, the rainfall is sufficient to bring the rice to maturity without artificial aid. In a year when the wet-season rice fails, the method of irrigation described above is largely resorted to for raising the *mayin* or dry-season rice, a crop usually thought but little of. The many streams with which the District abounds offer splendid facilities for irrigation, of which, however, the cultivator does not usually take the trouble to avail himself.

In the upper portion of the District dry-season rice is extensively grown in several large *jhīls*. It is estimated that the Minya *jhīl*, if fully cultivated, would produce enough rice to feed the whole population of the Homalin subdivision for six months. Fishing is carried on in most of these stretches of water, as well as in the bed of the Chindwin, and the fishery revenue exceeds Rs. 10,000 per annum.

Forests.

The District is comprised in the Upper Chindwin and Myittha Forest divisions, the former of which has its head-quarters at Kindat and the latter at Mingin. The Mansi subdivision of the Upper Chindwin division includes a small portion of Kathā District. The whole District is covered with forests, and timber abounds in infinite variety. There are no less than 33 teak forests, and many fine teak-bearing tracts are not yet 'reserved.' Perhaps the most remarkable forest and the only one on level ground is the Mahamyaing, situated on an extensive plateau in the south-eastern portion of the District. It is evergreen and full of grand timber, and is known among local Burmans as the *tawgyi* or 'great forest.' The following are the most characteristic trees: teak, which is extensively worked and exported to Rangoon by the Bombay Burma Trading Corporation; *pyingado* or *pyin* (*Xylia dolabriformis*), one of the hardest and most durable timbers of the Province; *ingyin* (*Pentacme siamensis*) and *thitya* (*Shorea obtusa*), both excellent for house-building; *yamane* (*Gmelina arborea*), now much used for boat-building; *shaw* (*Sterculia sp.*), from the bark of which ropes are twisted; *in* (*Dipterocarpus tuber-*

culatus) and *kanyin* (*D. alatus*), neither of them very durable woods, but felled largely for the supply of fuel to steamers; and the *thitsi* or wood-oil tree (*Melanorrhoea usitata*), which is one of the most valuable in the forests. From the *thitsi* areas of the Mingin subdivision alone wood-oil to the value of about Rs. 10,000 is exported yearly to Pagan and elsewhere, to be used as lacquer. Cutch is found in the vicinity of Sihaung in the Kale valley, but it has not been much worked. A cutch Reserve has, however, recently been formed. Of other minor forest products bamboos and canes are the most important; immense quantities of them are floated yearly down the Chindwin to the Districts of the dry zone. The District contains 2,070 square miles of 'reserved,' and 6,160 of unclassed forest. The net forest revenue in 1903-4 was 3 lakhs.

Minerals.

Coal exists in large quantities, but has been found so far in localities where it would not at present pay to work it. A portion of the carboniferous tract between the Yu and Myittha rivers was explored by Dr. Noetling, who declared the coal to be of good quality, comparing favourably with the best Indian kinds. Dr. Noetling has estimated that in this area alone, to which all the coal in the District is by no means confined, more than 100 million tons of workable coal could be obtained above the level of the Chindwin. With improved communications there seems no reason why these fields should not, in course of time, be developed. Mineral oil occurs in several places, most plentifully within the coal-bearing tracts. Gold-dust is found in the Chindwin and other streams which flow into it from the east, but appears to be most plentiful in the Uyu river and its tributaries; in fact, some of the inland villages in the Maingkaing township have had a gold currency from time immemorial. Rubies and sapphires have also been discovered on or near the Uyu. None of the above minerals, however, has as yet been systematically worked. Jade is found on the Nantaleik *chaung* near Tamanthi, and on the Namsam stream, which is the boundary between the Upper Chindwin and Myitkyinā Districts in the extreme north-east. No stone, however, has been quarried in the mines on the Nantaleik since the annexation. Amber mines have been worked within the last ten years in the Epin valley, in the abandoned tract between Haungpa on the Uyu and the Chindwin. Pottery clay is fairly common, but is made little use of. Salt springs are found at Yebawmi on the Uyu, and boiling is carried on there to a small extent.

Trade and communications.

The District is concerned mainly with the production of raw material, and has little to show in the way of arts and manufactures. The only characteristic industry is the weaving of Yaw *pasos* (waistcloths), which is carried on at Indin and several other villages in the extreme south of the

Kale valley. These *pasos* are dyed with indigo grown locally, and are well-known for their excellent wearing qualities.

The chief exports are paddy, teak, wood-oil, bamboos, and beeswax. Teak is exported mainly by the Bombay Burma Trading Corporation under contract with the Government, and duty is paid on its arrival at Pakokku. It is taken down in large rafts and sold in Rangoon. In 1901 more than 1,000,000 cubic feet of teak were exported from the District. Wood-oil is extracted mainly from the *thitsī* forests (*Melanorrhoea usitata*) of the Mingin subdivision, and is shipped in boats at Maukkadaw and sold at Pagan and other centres of the manufacture of lacquer-ware. About 300 maunds, valued at Rs. 10,000, are exported yearly. The tappers are poor people from the Mingin subdivision and the borders of Shwebo District, and the profits of the industry go mainly into the pockets of middlemen. In an ordinary year the District produces more than enough rice for its own consumption, and large quantities are available for export to Lower Burma. The grain goes down mainly by river, the paddy raft, with its cluster of thatch-roofed granaries and central hut, being a familiar sight on the Chindwin. The difference in prices makes the possibilities of the rice trade large. Most of the profits are usually absorbed by the brokers. Bamboos and canes are also largely exported to the dry zone Districts. The two Shan States in the District exchange rubber, beeswax, bamboos, and paddy for salt, sesamum oil, kerosene, and piece-goods. Rubber is exported from Zingkaling Hkamti and paddy from Hsawnghsup, and some of the jade extracted from the mines in Myitkyinā District passes by river through Kindat on its way south. There is very little trade with Manipur and Assam; but the tribes in the unadministered tract on the border come down at times with beeswax, which is bartered for salt and iron, and exported eventually to Mandalay.

The principal imports are salt, iron, and silk and cotton goods of European manufacture. The Irrawaddy Flotilla Company's steamers, which on the Chindwin are practically floating bazars, bring up large quantities of salt during the rains, when the river is high, as far as Homalin, whence it is distributed by boats, and finds its way as far north as the tribes who live beyond the Chindwin waterfall, close to the borders of Assam.

There are no railway lines, but the District possesses about 400 miles of unmetalled roads, maintained chiefly from Provincial funds. The most important of these are the road to the Kabaw valley and Manipur via Sittaung and Tamu; that to the Chin Hills via Kalewa and Kalemyo; the track from Kindat to Homalin via Paungbyin; the road to the Yaw valley via Mingin, Seiktha, and Pya (kept up mainly by the Forest department); and that to the Kabaw valley via Mawku and Teinkaya (maintained entirely by the Forest department). In the Hsawnghsup

State one track connects Tamu and Hsawnghsup, and a second from Hsawnghsup leads over the hills to Manipur. A path available for mules in the dry season leads from Hkamti on the Chindwin to Haungpa on the Uyu. During the rains, however, land communications are defective, and at all times waterways play an almost more important part in the economy of the District. The Chindwin, running through the entire length of the District, is its main highway. During the rains it is navigable by steamers of 4 feet draught almost up to the rapids, nearly 600 miles from its junction with the Irrawaddy, while in the dry season shallow-draught stern-wheelers can go beyond Tamanthi, about 400 miles from its mouth. The Uyu and Myittha rivers are deep enough for small launches during a portion of the rainy season, the former for 150 miles from its mouth, the latter for some little distance into the Kale valley. The steamers of the Irrawaddy Flotilla Company ply weekly between Pakokku and Homalin, and Government launches run weekly between Mandalay and Homalin. The chief indigenous method of inland navigation is by means of country boats called *londwins*. The Chindwin, the Myittha, the Yu, and the Uyu are navigable by these the whole year round.

Administration.

For administrative purposes the District is divided into four subdivisions: Kindat, comprising the KINDAT and TAMU townships; Kale, comprising the MASEIN, KALEWA, and KALE townships; Mingin, comprising the MINGIN and KYABIN townships; and Homalin, comprising the PAUNGBYIN, HOMALIN, and MAINGKAING townships. Under the township officers are 4 *myothugyis* and 454 village headmen, 21 of whom are empowered to try petty civil disputes. The two Shan States are administered by their own Sawbwas much in the same way as other Shan States, but in certain matters they are under the control of the Deputy-Commissioner. The subdivisional officer at Homalin discharges in these States all the functions of an Assistant Superintendent of the Shan States. The District forms a subdivision of the Chindwin Public Works division, the Executive Engineer having his head-quarters at Monywa in the Lower Chindwin District.

The Deputy-Commissioner and the subdivisional and township officers preside over the District, subdivisional, and township courts. The civil courts are mostly concerned with money-lending transactions of a petty nature; but wherever public works are in progress on a large scale, a crop of civil suits arising out of disputes between contractors and coolies invariably springs up. Litigation of this nature is commonest at Kalemyo, where there is always some road-work in progress. Suits for large sums are rare. In order to provide facilities for laying appeals in the remoter parts of the District, the subdivisional officer of Homalin has been made an additional judge of the District court.

Crime is light, the people being quiet and law-abiding, especially the Shan population in the northern half of the District. Opium cases alone are common, most of the Shans being addicted to the drug, while smuggled Shan and Kachin opium is very easy to procure. The amounts seized are, however, usually small, the average being 4 to 5 tolas.

Shortly after annexation a *thathameda* tax of Rs. 10 per household was imposed on the inhabitants, and has been collected at about this rate ever since. In 1887-8 the total realizations from *thathameda* amounted to Rs. 80,600. In 1891-2 the District was finally pacified, and the demand rose to Rs. 2,23,000. It reached its highest in 1893-4, when it touched Rs. 2,69,000. In 1903-4 it fell to Rs. 2,65,000, the decrease being due to steps taken to avoid an over-minute subdivision of households. As soon as the District officers had time to turn their attention from the work of pacifying the country to revenue matters, inquiries began to be made as to the existence of state land. The first regular assessment of land revenue was in 1888-9, the demand from state land being a fixed proportion of the gross produce varying from 20 to 30 per cent., based on the rates paid in the neighbourhood by tenants of non-state land to their landlords. At first it was collected in kind, stored at the cultivators' risk, and sold when the market was favourable. The demand in 1888-9 was only Rs. 2,000. In the ensuing year an effort was made to prevail on the agriculturists to pay their revenue in money instead of in kind, but the attempt was not altogether successful. In 1891 great difficulty was experienced in collection, the year being one of considerable scarcity all over the District, and in 1892 the demand was fixed at one-quarter of the produce and collected in money. Again there were obstacles in the way of realization, and indeed the revenue was never collected in full. The people of the Kale valley, from whom the Kale Sawbwa used to take no fixed revenue at all but only such sums as he might from time to time happen to want, were the most stubborn opponents of taxation. In 1893-4 the demand was Rs. 57,000, and the arrears Rs. 44,000; in 1894-5, out of a demand of Rs. 21,000, there were arrears to the extent of Rs. 13,500. In time it was found not only that the revenue rates were pitched too high, but also that the collections were made before the cultivator had time to dispose of his crops to the best advantage. In 1895-6 the rate was reduced to 10 per cent. of the out-turn, yielding only Rs. 17,000, and at this rate revenue has been collected ever since without difficulty. In the following year the whole of the Homalin subdivision was declared state land and assessed to revenue, the total District demand being Rs. 45,000. Since then up to 1900-1 there has been a small increase, due to extensions of cultivation. There has been no regular settlement.

The table below exhibits, in thousands of rupees, the fluctuations in the revenue during a succession of years. *Thathameda* is for the present the main source of revenue, yielding Rs. 2,65,000 in 1903-4.

	1890-1.	1900-1.	1903-4.
Land revenue . .	3	56	80
Total revenue . .	...	4,33	4,07

The income of the District fund for the provision and maintenance of roads, *dāk*-bungalows, &c., amounted in 1903-4 to only Rs. 3,000. The poverty of the fund is due to the failure of the attempt to make the people patronize Government bazars, the most fruitful source of District fund income elsewhere. No municipalities have been constituted.

The four police subdivisions under the control of the District Superintendent of police correspond to the four administrative subdivisions. An inspector supervises each of the subdivisions of Homalin, Kale, and Mingin, and an Assistant District Superintendent is ordinarily in charge of the Kindat subdivision. There are 11 police stations and 8 outposts; and the force consists of 4 inspectors, 11 head constables, 24 sergeants, and 302 constables. An assistant commandant and 640 men of the Chindwin military police battalion are stationed in the District, 514 of the men being natives of India and 126 Karens; but the strength of the force is reduced to 400 in the rains. About 200 to 300 military police are stationed in the extreme north as a protection against wild tribes, about 100 in Kindat, and the rest mainly at township and subdivisional head-quarters. There is a District jail at Kindat, with accommodation for 100 prisoners. The convicts are mainly employed in grinding wheat for the military police.

It is a curious fact that in 1891 the Upper Chindwin showed a larger proportion of males able to read and write than any other District in Burma, and that in 1901 it came second only to Minbu in this regard. Our knowledge of the actual conditions obtaining in the District leaves no doubt, however, that the literacy of the Upper Chindwin males in 1891 and 1901 must have been of the most primitive description. As a matter of fact, education in its stricter sense has so far made hardly any progress, and until quite recently the Upper and Lower Chindwin Districts were under the charge of a single deputy-inspector of schools. Since 1902, however, a separate deputy-inspector has been appointed for the Upper Chindwin, and it is hoped that an advance will now be made in education. For the District as a whole the proportion of literate persons was 27·5 per cent. (53 males and 2 females) of the population in 1901. The number of pupils was 623 in 1891, 2,516 in 1901, and

3,757 in 1904 (including 130 girls). In 1903–4 there were 30 primary and 343 elementary (private) schools. The only Anglo-vernacular (primary) school is at Kindat, and contains about 20 pupils. The expenditure on education is met by a grant of Rs. 1,800 from Provincial funds.

The Upper Chindwin is well off for medical institutions, containing 6 civil hospitals with 56 beds. In 1903 the number of cases treated was 30,785, including 573 in-patients, and 291 operations were performed. The expenditure amounted to Rs. 11,000, made up, with the exception of Rs. 850 from subscriptions, entirely of grants from Government. At the three military police hospitals 1,560 cases were treated in 1903, including 29 in-patients, and 11 operations were performed.

Vaccination is progressing, though much yet remains to be done, and it is nowhere compulsory. In 1903–4 the number of persons successfully vaccinated was 10,410, representing 67 per 1,000 of the population.

[F. Noetling, *The Coal Fields of the Upper Chindwin* (1893).]

Chindwin River.—The most important tributary of the Irrawaddy in Burma. Its source is as yet undetermined, as it is by no means certain whether the Tanai or the Tawan stream, which unite to form the main river, is to be taken as the chief source; but it may be said to have its origin in the hills that surround the Hukawng valley in the extreme north of the Province at about the 27th parallel of latitude. Little is known of the river during its passage in a westerly and south-westerly direction through the Hukawng valley. At the southern end of the valley its course is interrupted by falls or rapids, and about this point it enters the small Shan State of Zingkaling Hkamti and the Upper Chindwin District. Its first affluent below the rapids is the Uyu, which rises in the Jade Mines tract to the east, and flows into the main stream a few miles below the town of Homalin. Thence, for some distance, the Chindwin forms the eastern boundary of the Shan State of Hsawnghsup. At about the 24th parallel of latitude the Yu enters it from the Kabaw (Kubo) valley on the west, and a few miles below this junction it passes Kindat, the head-quarters of the Upper Chindwin District, which lies on its left bank. Kalewa, about 40 miles farther down on its right bank, is the point where the Chindwin is joined by the Myittha river from the Chin country in the west. So far its course has been on the whole southerly. At Mingin, however, a town on its right bank, it bends to the east and then to the north, after which, at the village of Maukkadaw, it curves to the south again and passes from the Upper into the Lower Chindwin District. Soon after crossing the border, the character of the country on the banks changes. In the Upper Chindwin the valley is for the most part narrow; for long stretches wooded hills slope sheer down to the water's edge, and where the high ground falls back from the river, the levels are a mass of *kaing-*

grass jungle; population is sparse, and villages are few and far between. South of Maukkadaw the valley widens out, the hills retire, hamlets multiply, and broad level plains are covered with crops typical of the dry zone. After passing Kani on the right bank and Alon, the terminus of the Sagaing-Alon Railway, on the left, Monywa, the head-quarters of the Lower Chindwin District (also on the left bank), is reached. South of Monywa the river forms the boundary between Sagaing and Pakokku Districts, flows past the market towns of Amyin and Yesagyo, and eventually empties itself into the Irrawaddy about half-way between the towns of Pakokku and Myingyan. The Chindwin is altogether between 500 and 600 miles in length. For more than 400 miles it is navigable during certain seasons of the year for steam traffic. The steamers of the Irrawaddy Flotilla Company run the whole year round as high as Kindat, 200 miles from its mouth, and during the rains as high as Homalin, about 130 miles farther up the stream. Country boats ply freely through its whole length, both above and below the rapids, and it is utilized largely for rafting. The banks of the river are used for the cultivation of tobacco and other *kaing* crops. In its lower reaches water-wheels are here and there used for lifting water to the level of the fields on the banks; and in the neighbourhood of the Irrawaddy there are a few minor village irrigation works which depend for their water-supply on the main stream, but the latter has not yet been worked systematically for irrigation purposes. There are no bridges over the Chindwin, and no ferries of more than local importance.

Chingleput District (*Sengalunirpattu*, or 'water-lily brook').—District on the east coast of the Madras Presidency, lying between 12° 15′ and 13° 47′ N. and 79° 34′ and 80° 21′ E., with an area of 3,079 square miles. It is bounded on the east by the Bay of Bengal; on the north by Nellore; and on the west and south by North and South Arcot; and it encloses within its limits Madras City, the capital of the Province.

Physical aspects.

The District is flat and dreary near the sea, but undulating, and in some places even hilly, elsewhere. The scenery contains little to attract the eye in any of the three northern *tāluks* of Saidapet, Ponneri, and Tiruvallūr, except where, in the extreme north of the last, the Nāgalāpuram hills and the ridge of which the highest peak is the well-known Kambākkam Drug contribute a few picturesque effects. These are the only hills of any size in the District. The height of Kambākkam Drug is 2,548 feet above sea-level, and that of the Nāgalāpuram hills about 2,500 feet. The Conjeeveram *tāluk* is also marked by little to relieve the monotony. Parts of the Chingleput and the Madurāntakam *tāluks* are, however, quite pretty, consisting of undulating plains varied by small ridged or conical hills running up to an elevation of some 600 feet.

The river system of the District consists of a series of streams which

flow across it from west to east into the Bay of Bengal. The largest of these is the Pālār, which rises in the State of Mysore, flows through North Arcot, enters Chingleput some miles to the west of Conjeeveram, and after running right across the District in a south-easterly direction falls into the sea 3 miles to the south of Sadras. The next most important river is the Korttalaiyār, which flows from the surplus weir of the great tank at Kāveripāk in North Arcot District, similarly traverses Chingleput from west to east, and falls into the backwater at Ennore, a few miles north of Madras City. The Araniya Nadī or Arani river enters the District in the north of the Tiruvallūr *tāluk*, where it is known as the Nāranavaram. After flowing across the centre of the Tiruvallūr and Ponneri *tāluks*, it reaches the sea near Pulicat. The Cooum (Kūvam) is formed by the surplus water of the Kūvam tank, and after flowing through the Saidapet *tāluk* and Madras City falls into the sea near Fort St. George. Besides these there are the two smaller streams of the Cheyyār and the Adyar. The antagonism between the languid waters of these rivers and the sand-laden currents of the Bay have resulted in the formation of a string of brackish backwaters along the coast, the chief of which are the Pulicat and Ennore Lakes. These are connected by the BUCKINGHAM CANAL. None of them is navigable, and for most of the year the smaller ones are dry.

Geologically the country is of some interest. The Archaean gneissic and plutonic rocks are to be seen emerging from beneath the younger sedimentaries in the south-western and southern parts of it. They include the typical examples of the charnockite series as developed at St. Thomas's Mount and Pallāvaram, where the acid or quartz-bearing form of the hypersthene granulite is found in contact with the basic or norite form. Presumably lying on the Archaeans, though the base is not seen, come representatives of the Upper Gondwāna plant-bearing shales in a small outcrop 25 miles west-south-west of Madras City, and other very small patches south of the Pālār river lying directly on the gneiss. They belong to the local series named the Srīperumbūdūr group, composed of white shales containing plants associated with sandstones and micaceous sandy shales and conglomerates; and they contain some ill-preserved ammonites and bivalves, as well as plants, which may indicate affinity with the Neocomian rather than the Jurassic series. They are nearly horizontally disposed, of no great thickness, and probably represent the lower part of the Upper Gondwānas as developed a short distance to the north-west in North Arcot District. From a boring in Place's Garden near Madras it would seem that Lower Gondwānas (with a remote chance of coal) underlie the Upper Gondwānas, at least locally. Unconformably above the Upper Gondwānas and overstepping on to the gneisses in other places comes a very thin bed of low-level conglomeratic laterite, from 10 inches to 12 feet thick, together

with laterite red sands and loams. These occur in patches (as in the Red Hills north-west of Madras City), and are the remains of a once continuous horizontal formation, probably of marine origin, lying from 500 to 600 feet above sea-level and cut through by recent river alluvium. They contain stone (quartzite) implements. Alluvial areas in the river-beds and along the coast, together with blown sand, complete the list of surface deposits.

The flora of Chingleput presents few points of interest. The rainfall and altitude of the District are almost uniform, and thus the plants found throughout it resemble those of similar areas on the east coast. The forest trees and the crops are referred to below. The most noticeable trees among the villages are the palmyra palm and the casuarina. The latter has been planted extensively all along the belt of sandy soil which fringes the sea-coast.

Wild animals of the larger kinds are scarce. An occasional tiger, a few leopards, and some bears are found in the north of the Tiruvallūr *tāluk* among the hills, and also spotted deer and *sāmbar* in small numbers. Wild hog are fairly numerous there, and in the low hills and scrub jungle in the Chingleput *tāluk*. The District is famous for its snipe-shooting, which is systematically exploited by residents of Madras, and florican are more than usually common.

The climate, considering the latitude, is temperate, and resembles that of other coast Districts in the south of the Province in presenting no extremes of heat or cold. The mean annual temperature of Madras City, which lies in the centre of the District, is 83°. It is a healthy tract on the whole, though fever is endemic in the west in some places, and in the east leprosy and elephantiasis are prevalent.

The rainfall is neither copious nor very regular. The annual fall throughout averages 45 inches, but this varies much in different localities. The supply is greatest (51 inches) in the coast *tāluks*, next heaviest in the adjoining areas, and lightest (43 inches) in the westernmost parts. The reason for these variations is that the greater part of the annual supply is received from the north-east monsoon, and this has parted with some of its moisture by the time it has traversed the eastern side of the District. No rain sufficient for cultivation usually arrives in April and May. In the south-west monsoon (June to September) the early 'dry' (unirrigated) crops are grown. The most important cultivation is that carried out with the north-east rains, which fill the tanks (artificial irrigation reservoirs) and enable the 'wet' (or irrigated) crops to be put down. The District has suffered comparatively little from famine, but has had more than its share of disastrous hurricanes and cyclones. Accounts of some of these will be found in the article on MADRAS CITY.

From the earliest times of which there is any record up to the middle

of the eighth century, Chingleput formed part of the ancient kingdom of the Pallavas, whose capital was Kānchi, the modern Conjeeveram. The authorities are divided as to who these Pallavas were and whence they came. During the height of their power, about the beginning of the seventh century, they ruled over a great kingdom extending from the Narbadā and Orissa in the north to the Ponnaiyār river in the south, and from the Bay of Bengal on the east to a line drawn through Salem, Bangalore, and Berār on the west. The famous monolithic temples and *raths* at Mahābalipur, better known as the SEVEN PAGODAS, on the coast nearly due east of Chingleput town, are attributed to them.

History.

About 760 the Pallavas became extinct as a ruling power, and Chingleput then passed under the Western Gangas of Mysore. The Rāshtrakūtas of Mālkhed, in the present Nizām's Dominions, invaded the District and took Kānchi in the beginning of the ninth and again in the middle of the tenth century. Shortly afterwards Chingleput became part of the country of the CHOLAS, whose greatest ruler, Rājārājā Deva, was then at the height of his power. On the decline of the Cholas about the middle of the thirteenth century, the District passed under the Kākatīyas of Warangal, and a line of later Cholas ruled over Kānchi and the surrounding country, with one slight interruption, as their vassals. About 1393 it was absorbed into the kingdom of VIJAYANAGAR, which was then extending its hold over all Southern India, and with little or no interruption continued to be part of that realm for over a century and a half.

On the overthrow of the Vijayanagar dynasty by the combined Muhammadan kings of the Deccan at the battle of Tālikotā in 1565, it came into the hands of one of the deputies of the fallen kingdom, who continued to pay allegiance to the fugitive king of Vijayanagar after his flight to CHANDRAGIRI, in North Arcot District. From a later deputy the English received, in 1639, the grant of the site on which Fort St. George now stands. Shortly afterwards the whole of south-east India was overrun by the Kutb Shāhi Sultāns of Golconda. The Naiks (as the deputies were called) of Chingleput remained the vassals of these new conquerors, and their dealings with the English at Madras are prominent points in the early history of Fort St. George.

On the fall of Golconda in 1687 Chingleput passed, with the rest of the Carnatic, under the rule of the Mughal emperors at Delhi. During the Carnatic Wars of the eighteenth century Chingleput and other towns and villages in the District were the objects of repeated attacks, and figure constantly in the story of these troublous times. In 1763 the District, which then included some of the villages now forming part of Madras City, was granted in perpetuity as a *jāgīr* to the East India Company by Muhammad Alī, the Nawāb of Arcot, in considera-

tion of the services rendered to him by the English, and in 1765 the grant was confirmed by the Mughal emperor. The old records always call the District 'the Jāgīr.' For the next fifteen years it was leased annually to the Nawāb himself, and during that time Haidar Alī, who had by then usurped all sovereign authority in Mysore, devastated it twice, in 1769 and again in 1780. On the assignment of the revenues of the Carnatic to the English by the Nawāb of Arcot in 1781, it was placed under the charge of the Committee of Assigned Revenues. In 1801 it became part of the British dominions in India on the cession of the Carnatic in full sovereignty to the Company by the Nawāb. Besides the territory thus acquired, Chingleput includes the town of Pulicat, the earliest Dutch possession in India (founded in 1609), which was ceded to the British in 1825.

The oldest objects of archaeological interest in the District are the rude stone monuments, relics of the Kurumbas and earlier prehistoric races, which are found in considerable numbers. The monolithic buildings at the SEVEN PAGODAS, the legends connected with ST. THOMAS'S MOUNT, the old Dutch Settlements at PULICAT and SADRAS, and the antiquities at CONJEEVERAM are referred to in the respective articles on these places.

Population.

The District is made up of six *tāluks*, the head-quarters of which are at the places from which they are respectively named. Statistics of these, for the census year 1901, are appended:—

Tāluk.	Area in square miles	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Tiruvallūr	744	1	464	253,973	341	+ 7.2	13,724
Ponneri	347	1	240	136,597	394	+ 11.6	7,803
Saidapet	342	6	254	262,478	767	+ 16.9	24,869
Chingleput	436	2	298	155,213	356	+ 13.1	13,092
Conjeeveram	514	2	364	225,300	438	+ 3.0	22,416
Madurāntakam	696	3	524	278,561	400	+ 5.9	19,966
District total	3,079	15	2,144	1,312,122	426	+ 9.1	101,870

The District head-quarters are at SAIDAPET. Chingleput is the smallest District in the Presidency except Madras City, the Nīlgiris, and Anjengo; but the density of the population of every *tāluk* is considerably above the average for the Presidency as a whole, and in Saidapet, which surrounds Madras and contains several villages which are practically suburbs of that city, it is as high as 767 persons per square mile. The total population of the District in 1871 was 938,184; in 1881, 981,381; in 1891, 1,202,928; and in 1901, 1,312,122. Since the first

of these years it has increased by one-third, and in the last decade the rate of growth was above the average for the Province and in the Saidapet *tāluk* was as high as 17 per cent. Immigration from North Arcot is considerable, but is more than counterbalanced by the movement from the District itself into Madras City. The villages in Chingleput are usually small, averaging only 524 inhabitants apiece. It contains fifteen towns, of which two, CONJEEVERAM (population, 46,164) and CHINGLEPUT (10,551), are municipalities, and the others are Unions.

Of the people of Chingleput, 1,255,257, or 96 per cent., are Hindus, 30,010 are Musalmāns, and 26,466 are Christians. These last increased at the rate of 40 per cent. during the last decade. The District is one of seven in the Presidency in which, for some reason which has never been satisfactorily explained, females, contrary to the usual rule, are fewer than males. Though it really belongs to the Tamil country, it marches with Telugu Districts on the north and west, and in its north-western *tāluk*, Tiruvallūr, Telugu is the prevailing vernacular. In the District as a whole, nearly a fourth of the people speak Telugu, and about three-fourths Tamil.

Owing to its proximity to Madras City, Chingleput contains a high proportion of Europeans and Eurasians. The Hindus include 1,021,000 Tamils and 217,000 Telugus. Of the former as many as 321,000 belong to the low caste of Paraiyans, and the high proportion of this community to the total population is one of the most notable facts in the social constitution of the District. The Pallis—who, like the Paraiyans, are mainly agricultural labourers—also occur in great strength, numbering as many as 262,000. Other castes which, though not remarkable numerically, are found in greater strength in Chingleput than elsewhere are the Pandārams, a class of Saivite priests and religious beggars many of whom officiate at the domestic ceremonies of the Vellālās; the Pattanavans, fishermen; the Vedans, who are *shikāris* and agriculturists; and the Kannadiyans, a Kanarese caste of shepherds and cattle-breeders most of whom are Lingāyats by sect.

The District is notorious for the disputes which occur in it, and especially at Conjeeveram, between the Vadagalai and Tengalai subsects of the Vaishnavite Hindus. The chief points of doctrinal difference between them are as follows: The Vadagalais prefer to read sacred books and chant in Sanskrit, while the Tengalais, although revering that language, attach greater value to their own vernacular. The Vadagalais believe the attainment of salvation to be aided by devotions, ritual, and good works; the Tengalais assert it to be of grace alone. The former worship Lakshmi, the consort of Vishnu, as a goddess equal in power to her husband; the latter condemn this practice and insist that the goddess can only intercede. The Vadagalais

begin their prayers with praise of Vedānta Desikā (a saint born at Conjeeveram), while the Tengalais begin theirs with praise of the saint Manavālamāmuni.

The occupations of the people of Chingleput differ little from the normal. The District is somewhat less exclusively agricultural than the average, but the reason for this is merely that there are many fishermen along the coast.

Of the 26,466 Christians in the District in 1901, 23,714 were natives of India and 2,752 Europeans and Eurasians. Two-thirds of them are Roman Catholics. The Wesleyan, United Free Church of Scotland, and London Missions are the chief Protestant missions at work. The Wesleyan Mission carries on its operations in the Madurāntakam and Saidapet *tāluks*, and the Free Church Mission in Chingleput, Conjeeveram, and Ponneri. These bodies maintain a large number of schools for Hindus and Panchamas (depressed castes) of both sexes. Their work among the Panchamas is partly religious, partly social, and partly educational. They have lent their assistance to enable thrifty individuals to hold land, the missions themselves in some cases buying or holding this for them; and the United Free Church Mission has founded three peasant settlements to improve the condition of the community. The principal of these is Melrosapuram, within an easy drive of Chingleput, which was started in 1893. Here is a school in which boys are taught agriculture, the extraction of plantain fibre, ropemaking, and blacksmiths' work, so that they may be able to mend their implements. The valuable experiments in well-irrigation which have been made here are referred to below.

Agriculture.

There are three classes of soil in the District—black, red, and arenaceous—each of which has three varieties: namely, loam, clay, and sand. In each class the loam is considered the best and the sand the worst. The black and the red soils are well suited for cultivation, the black being generally the more fertile of the two; but the arenaceous soil, which occurs in a wide strip all along the sea-shore, is fit only for the plantations of casuarina which abound in the coast villages. The red soil predominates in the northern *tāluks* of Tiruvallūr, Ponneri, and Saidapet, while the black soil is commonest in the south—in Chingleput, Conjeeveram, and Madurāntakam. The southern portion of the District is consequently more fertile than the northern. September is the month in which the sowing of the crops chiefly takes place, one-fourth of the 'dry' land and nearly one-third of the 'wet' land being planted then. Next in importance for sowing comes October.

The District is principally *ryotwāri* land, but *zamīndāri* and 'whole *inām*' areas cover as much as 950 square miles out of the total of 3,079. For these, detailed statistics are not available, and the area for

which particulars are on record is 2,435 square miles. In 1903–4 this was made up as shown below, areas being in square miles:—

Tāluk.	Area shown in accounts.	Forests.	Cultivable waste.	Cultivated.	Irrigated.
Tiruvallūr . .	456	104	38	216	121
Ponneri . . .	308	6	9	172	96
Saidapet . .	311	14	10	208	101
Chingleput . .	381	65	31	164	95
Conjeeveram . .	447	8	11	276	150
Madurāntakam .	531	17	35	299	139
Total	2,435	214	134	1,335	702

Of the cultivable waste a large proportion is very poor soil, but a considerable area may be expected to come gradually under cultivation as population increases.

The staple food-grains of the District are rice and *rāgi* (*Eleusine coracana*), the areas under which were 927 and 97 square miles respectively, or, taken together, three-fourths of the total extent sown in 1903–4. The other crops chiefly cultivated are *varagu* (*Paspalum scrobiculatum*), indigo, gingelly, *cambu* (*Pennisetum typhoideum*), and ground-nut. *Varagu* is mostly cultivated in the Madurāntakam *tāluk* on inferior sorts of 'dry' land; indigo, *cambu*, and ground-nut chiefly in the Tiruvallūr *tāluk*; and gingelly in Conjeeveram and Madurāntakam.

Methods of cultivation are the reverse of careful. Much of the soil is poor, and much of the land is held by absentee landlords, who sublet it to cultivators whose means are small and whose tenancy is insecure. Good farming is thus a rarity, manuring and weeding are neglected, and much of the District has a poverty-stricken appearance. At Saidapet is the Government Agricultural College, but it cannot be claimed that the ryots have profited by its teachings. In one direction, however, there are signs of improvement, and that is in the number of wells which have recently been dug or repaired. In the sixteen years ending 19[illegible] more than 5½ lakhs was borrowed by the ryots under the Land Improvement Loans Act for this purpose. The farm-school at Melrosapuram belonging to the Free Church Mission, which has already been alluded to, has conducted valuable experiments on the capabilities of wells equipped with pumping machinery, which ought to do much to extend this form of irrigation. A well on the farm was fitted with an oil-engine of 3½ horse-power and a pump; it was deepened and four adits made at the bottom; and a new well was sunk close by to serve as a storage basin and joined to the other by another adit. By these means the inflow was greatly increased, and with the help of the pump the well was made to irrigate twenty acres

instead of five. It is considered certain that this area is capable of further extension. Valuable crops such as sugar-cane and plantains are now grown by this means, and the value of the produce is from eight to twenty times what it formerly was. Large quantities of manure and tank silt are used on the land. Around the well are hundreds of valuable fruit trees, which give the place a flourishing appearance. The ryots of the District have taken much interest in these experiments; and Government has sanctioned the establishment in other places of five schools similar to that at Melrosapuram, and is also conducting further experiments in the use of pumping machinery in connexion with wells.

No breed of cattle is peculiar to Chingleput. Those raised locally are mostly inferior, as there are few good grazing-grounds. The best cattle are imported from the adjoining Districts. The goats and sheep are of the ordinary varieties.

Of the total area of *ryotwāri* and 'minor *inām*' lands cultivated in 1903-4 (1,335 square miles), 702 square miles, or more than half, were irrigated. By far the larger part of this extent (619 square miles) was watered from tanks or artificial reservoirs. These number 2,553, and are mostly rain-fed. Some of them, however, are supplied from channels led from the rivers mentioned above. The most important of these are the Red Hills and Cholavaram tanks, fed from the Korttalaiyār, which irrigate 9,054 acres in the Ponneri and Saidapet *tāluks*, and the former of which supplies Madras City with water; the Vallūr tank in Ponneri, supplied from the Arani river; the Chembrambākam tank in Saidapet, which is fed from the Cooum and irrigates 18,000 acres in 37 villages; and the tank at Uttaramerūr, fed by the Cheyyār. Other tanks of importance are those at Madurāntakam, Karunguli, Edamichi, and Periamkolam in the Madurāntakam *tāluk*; at Srīperumbūdūr, Tenneri, and Manimangalam in the Conjeeveram *tāluk*; and at Tinnanūr and Ambattūr in Saidapet. Besides these tanks, 158 river and 340 spring channels irrigate about 50,000 and 7,350 acres respectively. Wells form an additional source of irrigation, and there are 32,650 in the District, most of which are unfailing except in years of severe drought. Water is drawn from them either by *picottahs* (long wooden levers with a bucket at one end, which are actuated by two or more men walking backwards and forwards along them), or by *kappilais* or *mots* (leathern buckets pulled up by a rope and pulley, worked by bullocks).

The District has little real forest growth. There are 94 'reserved' forests, occupying 214 square miles; but they mostly consist of low scrub, except the forests about the Kambākkam and Nāgalāpuram hills in the Tiruvallūr *tāluk*, where there is some timber. The latter make up nearly half the forest area in the District. They have been under

conservation for eighteen years, and abandoned fields included within the protected areas have become clothed with a growth of good material, which is steadily improving both in condition and in size. The other Reserves, lying in the plains, consist mostly of inferior trees and small shrubs, only capable of yielding faggot-wood, manure-leaves, and bark. The greater part of these (65 square miles) are in the Chingleput *tāluk*. The chief value of the Reserves at present is to serve as a grazing-ground for cattle. The total net revenue realized from them in 1903-4 was Rs. 13,000. They are administered by a District Forest officer, under whom are two range officers.

The minerals of the District are few. Some years ago, on the hills round Chingleput, a good felspar, useful for glazing pottery, used to be found. The best variety was of a fresh pink colour passing into a deep purple, variegated and glistening with a curious play of colours. It is the same kind as that which used to be imported from Sicily into England. Another variety found in the same locality was called Labrador felspar. Its colours were dark, and the stone was used in Europe as an ornamental pebble. Among the hills to the north and north-west of Chingleput has been found a very scarce variety of granite. The colours were pale green, flesh-colour, grey, and black and white, and they became very brilliant when polished. Unfortunately it existed in very small quantities, but its value may be gathered from the fact that it used to command a sale in Europe in pieces as small as 4 inches by 2. It was used for pedestals for busts and for making small polished table-ornaments. No one has taken the trouble to work either the felspar or the granite, and their very existence appears to have been forgotten. In the clayey estuarine beds to the north of Madras City concretionary masses of gypsum and crystals of selenite occur, but not in any great abundance. Supplies for making plaster of Paris for use in the School of Art at Madras have, however, been obtained from this source.

Trade and communications

Next to agriculture, cotton- and silk-weaving form the most important occupations of the people. Statistics show that there are over 11,000 looms in the District, more than half of them being in the Conjeeveram *tāluk*. Excellent muslins were formerly made at Arni in the Ponneri *tāluk*, but the industry has died out. Superior *sārīs* of silk and cotton, such as native women wear, are made at Conjeeveram. Coloured check fabrics are manufactured in some villages, especially in the northern part of the Tiruvallūr *tāluk*, and are exported to Penang. Similar checks and other stuffs are also made in the Chingleput Reformatory School.

There are some tanneries, but the industry (which a few years ago was of considerable importance) is languishing on account of the adoption of the chrome process of tanning in America and elsewhere.

The skins are now sent to Madras after being merely dried, and are exported thence. The trade is chiefly in the hands of Musalmāns.

A cigar factory at Guindy, owned by a European firm, employs 800 hands. Ten small paper-making establishments at Sembiem near Madras provide work for ten or a dozen persons each. The District also contains nearly 400 indigo vats and 500 of the ordinary country oil mills. The Madras Railway has large workshops at Perambūr, just outside the limits of Madras City, in which 4,500 persons are employed.

Though the District has a long seaboard, this possesses no single place which can be called a harbour or which offers any facilities for shipping. There are therefore no recognized ports within its limits, and its small sea borne trade is conducted through the port of Madras. Having no manufactures and no natural products of importance, and being a comparatively infertile area, the District has but little commerce of any kind. Its chief trade consists in supplying the population of Madras City with the ordinary local products, such as dried cow-dung fuel, firewood, grain, vegetables, meat, straw, grass, sand, laterite, bricks, and so forth. In return it imports from Madras the usual foreign goods, such as kerosene oil, European piece-goods, and metals, which are required by the villagers. There can hardly be said to be any real centres of trade. Unimportant weekly markets are held at Uttaramerūr in the Madurāntakam *tāluk*, at Wālājābād in Conjeeveram, and at Vallūr in Ponneri. The money lending of the District is largely in the hands of Mārwāris, who are prominent in such places as Saidapet, Poonamallee, and Pallāvaram. Much of it is also done by a number of mutual benefit and loan societies registered under the Indian Companies Act, the nominal capital of which is as much as Rs. 5,88,000.

Since Chingleput surrounds Madras it is traversed by the three lines, the south-west and north-east sections of the Madras Railway and the South Indian Railway, which start from that city. It is accordingly well provided with railway communication. The south-west line of the Madras Railway (standard gauge) enters the centre of the District at Siruvallūr, a few furlongs from the Perambūr railway station on the confines of Madras City. It runs due west through the Saidapet and Tiruvallūr *tāluks*, and then passes into North Arcot to the junction of Arkonam. This line was opened in 1856. The entire length of 27½ miles within the District has a double line. The East Coast line of the Madras Railway (also on the standard gauge), which is a state railway opened in 1899 and worked since 1901 by the Madras Railway Company, enters the District 2 miles from Tondiarpet, a suburb in the north of Madras City, runs due north as far as Ennore, and thence passes north-westwards through the Ponneri *tāluk*, crossing the Kortalaiyār and Arani rivers by fine bridges, into Nellore District. The length of the line within the District is 28½ miles. The main line of the

South Indian Railway (metre gauge) enters Chingleput from the west of Madras City and runs south through the Saidapet and Chingleput *tāluks*, crosses the Pālār river by a girder-bridge of eighteen spans of 120 feet each, and passes through the Madurāntakam *tāluk* and on into South Arcot. The portion within the District is 61 miles in length, and was opened in 1876. A branch line connects Chingleput town with Conjeeveram, and runs on towards Arkonam, the total length of this connecting chord within the District being 29 miles. All the three lines run special office trains for the benefit of officials and others who have daily business in Madras City.

The construction by private enterprise of tramways on five roads in the District, four of which are close to Madras, has recently been sanctioned. These tramways will be on Ewing's mono-rail system, and will be worked by horse and bullock power. One of them, from Poonamallee to the Avadi station on the Madras Railway, has already been opened.

The District is well provided with roads, all of them are maintained by the local boards. The total length is 717 miles, of which 659 miles are metalled. There are avenues of trees along 594 miles. The chief lines are the southern, western, and northern trunk roads. The first of these leads southwards into South Arcot District, running parallel to the South Indian Railway, through the Saidapet, Chingleput, and Madurāntakam *tāluks*. The second runs westward from Madras through the Saidapet and Conjeeveram *tāluks*, and leads to North Arcot District, while the third passes northwards into Nellore District through Saidapet and Ponneri. Owing to the situation of Madras City in the heart of the District, the traffic on all the trunk roads is very heavy.

Along the whole of the coast of Chingleput runs the Buckingham Canal. It utilizes the backwaters with which the shore is fringed, and places the District in direct communication by water with South Arcot to the south and, on the north, with all the coast Districts as far as Godāvari.

Famine.

Chingleput suffered four times from famine in the eighteenth century —in 1733, owing to general neglect of its irrigation works; in 1780, in consequence of Haidar's invasion; in 1785, as the result of a great cyclone which damaged the tanks and channels; and in 1787, from the failure of the rains;—and five times since the beginning of the last century: namely, in 1807, 1824, 1833, 1876–8, and 1891. It has also in several other years (notably in 1867–8, 1868–9, and 1900–1) been affected by less serious scarcities. Its proximity to the seaboard and its numerous railways and the resultant facilities for the supply of grain render improbable the occurrence of any actual dearth of food; but though it is not included within the famine zone of the Presidency, the crops are always more or less

precarious. This is more especially the case owing to the facts that a large area of land usually produces rain-fed rice which requires good showers to save it from failure, and that the irrigation works nearly all depend upon local rainfall and dry up if the season is unfavourable. The six largest irrigation works, for example, will in ordinary seasons supply 55,400 acres, but in a bad year they are unable to protect more than 15,000 acres. The minor irrigation works protect about 335,400 acres in ordinary years, but in a year of prolonged drought not more than 41,000. The area protected by wells is also small. The worst famine on record was that of 1876–8—the Great Famine, as it is called. The average number of persons relieved daily in the District during the twenty-two months for which this lasted was 40,000; and in September, 1877, the figure was as high as 116,000, or over 12 per cent. of the total population. Probably, however, a proportion of these were people from other Districts; stories had circulated freely among the natives of the ample supplies of food available in Madras City, and they flocked thither in thousands through Chingleput.

Administration. The *tāluks* are grouped for administrative purposes into three subdivisions, one of which is in charge of a member of the Indian Civil Service, each of the other two being under a Deputy-Collector. The Civilian takes the Chingleput subdivision, comprising the Chingleput, Madurāntakam, and Conjeeveram *tāluks*; one of the Deputy-Collectors the Saidapet subdivision, consisting of the Saidapet *tāluk*; and the other the Tiruvallūr subdivision, which includes Tiruvallūr and Ponneri. A *tahsīldār* is stationed at the head-quarters of each of the *tāluks* and a stationary sub-magistrate also. In addition there are deputy-*tahsīldārs* (who are also sub-magistrates) at Poonamallee (Saidapet *tāluk*), Srīperumbūdūr (Conjeeveram *tāluk*), Uttaramerūr (Madurāntakam *tāluk*), and Satyavedu (Tiruvallūr *tāluk*). The superior staff of the District includes the usual officers, except that the Executive Engineer has his head-quarters at Madras City and has also charge of the Buckingham Canal. The Collector's office and residence is at Saidapet, the District Court is at Chingleput (where the District Medical and Sanitary officer also resides), and the Superintendent of police lives at St. Thomas's Mount.

Civil justice is administered by the District Court and four District Munsifs, stationed respectively at Chingleput, Conjeeveram, Poonamallee, and Tiruvallur. A large proportion of the civil litigation is made up of suits under the tenancy law. These are more numerous than in any other District except three, the average annual number being about 1,250. Crime is usually light in Chingleput, the population not including any large number of the criminal castes. Recently dacoities have increased considerably, but this is apparently due to temporary causes.

Very little reliable information is available regarding the revenue history of the District before it was granted to the East India Company as a *jāgīr*. Under the Hindu sovereigns the crown received a share of the produce of each village or township, the government having nothing to do with individual cultivators. Under the Musalmāns the government's share of the produce was farmed out to renters to collect, and oppression and confusion were rampant. When the Company obtained the country, they at first rented it back to the Nawāb for a fixed sum. His management was as bad as any administration could be. Absurdly high estimates of the yield of each village were made, and reduced to some extent after fees had been paid to officials and to the Nawāb himself. In 1783 the lease to the Nawāb terminated, and the Company assumed direct management of the Jāgīr. It was placed under the control of the Committee of Assigned Revenues appointed to manage the Nawāb's possessions in the Carnatic. This committee divided it into fourteen farms, and rented them out on leases for nine years from 1783 to 1791 on progressive rents. But most of the renters failed before the fourth year and hardly any of them were able to tide over the sixth, and thereupon almost all of them were deprived of their farms. After the termination of these leases, the Jāgīr was parcelled out into smaller allotments and granted on triennial leases to the principal inhabitants. Under this system the revenue improved. In 1794 Mr. Lionel Place, whose name is still remembered in the District, was appointed Collector. He found that the receipts under the triennial leases did not represent the amount properly due to the Company; and he endeavoured to remedy matters by making a careful investigation of the sources of land revenue and a thorough inquiry into the rights and privileges of the ryots, as well as by bringing to light abuses in the collection and management of the assessment. He made a settlement of the land, based on the estimated out-turn of the produce of each village commuted into a money payment, and the principal landowners were held responsible for the collection and payment of the revenue to the Government. This system, however, involved a recognition by Government of inconvenient rights, and was not approved. In 1801–2 a permanent settlement was introduced; the country was divided into sixty-four estates, each paying a revenue of from Rs. 7,000 to Rs. 16,000, the rights to the collections in which, subject to the payment of a fixed revenue to Government, were sold by auction. The fixed revenue was based on an examination of the condition of each village in respect to ploughs, live-stock, means of irrigation, and fertility, checked by reference to the accounts of ten years prior and subsequent to 1780 and the revenue of 1798–9. This system was, however, found to work very unsatisfactorily, as no allowance had been made for bad seasons, and the amounts which the ryots

could pay had been estimated on so high a scale that the purchasers of the estates made little profit. In consequence many sales of their land took place, and considerable portions of the estates were resumed and again rented out village by village on triennial leases. In 1803 the *ryotwāri* system was introduced into a portion of the Jāgīr. The land was surveyed and classified into 'wet,' 'dry,' and 'garden,' the two former being further subdivided into grades in accordance with their soil. The rates of assessment were arrived at by taking the estimated average out-turn of each field in ten average years, deducting 20 per cent. for cultivation expenses, and then apportioning the residue equally between the Government and the ryot. The Government's share was then converted into a money equivalent. This arrangement was popular with the ryots, and the revenue of the tract where it was introduced rose by nearly one-third. In 1816 the favourable results of the survey and settlement of the Ceded Districts under Sir Thomas Munro induced the Government to order its introduction into the whole of this District, and it has continued in force up to the present day. Between 1870 and 1874 the District was systematically surveyed, and from 1872 to 1879 a resettlement was made. The survey showed that the area in occupation was 11 per cent. more than had been shown in the old accounts, and the settlement resulted in an increase of 4 per cent. in the total assessment. The average assessment on 'dry' land is Rs. 1-8-7 per acre (maximum Rs. 4, minimum 4 annas), and that on 'wet' land Rs. 4-6-8 per acre (maximum Rs. 7-8-0, minimum Rs. 2). The District will very shortly be resettled.

The revenue from land and the total revenue in recent years are given in the following table, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . . .	21,90	16,02	19,76	23,51
Total revenue . . .	26,06	22,34	27,01	32,94

Outside the municipalities of Chingleput and Conjeeveram, the local affairs of the District are managed by the three *tāluk* boards of Chingleput, Saidapet, and Tiruvallūr, under the immediate supervision of the District board. The areas in charge of the *tāluk* boards correspond with those of the three revenue subdivisions given above. There are eighteen Unions, managed by *panchāyats* established under Act V of 1884, composed of the smaller towns and some of the villages. The expenditure of all these bodies in 1903-4 was Rs. 2,81,000, more than half of which was laid out on public works. The chief source of income was, as usual, the land cess.

The District Superintendent of police at St. Thomas's Mount has general control over the police throughout the whole District. There

are 63 police stations (including outposts), and the force numbers 687 constables working under 12 inspectors, besides 1,001 rural police. A force of reserve police at head-quarters numbers 119 men under an inspector.

No Central jail is maintained in the District, convicts being sent to the Madras Penitentiary or to the jails at Vellore and Cuddalore in North Arcot and South Arcot Districts respectively. There are ten subsidiary jails situated at the head-quarters of the several *tahsīldārs* and deputy-*tahsīldārs*, with accommodation for 305 prisoners. The Reformatory School for juvenile offenders at CHINGLEPUT TOWN is referred to in the separate article on that place.

According to the Census of 1901 Chingleput stands sixth among the Districts of the Presidency in regard to the literacy of its inhabitants, 7·8 per cent. (14·4 males and 1·0 females per cent.) being able to read and write. Education is most backward in the Ponneri *tāluk* and in the Satyavedu side of Tiruvallūr. The total number of pupils under instruction in 1880–1 was 14,329; in 1890 1, 24,724; in 1900–1, 34,308; and in 1903–4, 38,364. On March 31, 1904, there were 833 primary, 25 secondary, and 7 special schools, and 2 colleges, besides 422 private schools. Of the 867 institutions classed as public, 9 were managed by the Educational department, 38 by local boards, and 6 by municipalities, while 513 were aided from public funds, and 301 were unaided but conformed to the rules of the department. The majority of the pupils were in primary classes, and the number of girls beyond that stage was small. Of the total male population of school-going age 24 per cent. were in the primary grade of instruction, and of the female population 4·8 per cent. Among Muhammadans the corresponding percentages were 56·8 and 7·6. There were 272 schools for Panchamas, containing 5,911 pupils. The special schools include the Reformatory School at Chingleput and the technical classes in St. Patrick's Orphanage at Adyar. The two colleges are the Teachers' College and the Agricultural College, both at Saidapet. The latter will shortly be removed to Coimbatore. A high school for practising purposes is attached to the former. The total expenditure on education in 1903–4 was Rs. 3,37,000, of which Rs. 73,000 was derived from fees. Of the total, 41 per cent. was devoted to primary education.

There are fourteen dispensaries in the rural areas of the District, two hospitals in the two municipal towns of Conjeeveram and Chingleput, and a dispensary for women and children at Conjeeveram. The rural dispensaries are maintained by the local boards, which also contribute Rs. 2,500 and Rs. 1,400 respectively towards the upkeep of the municipal medical institutions. In the hospital at Conjeeveram is a maternity ward, which was built by Rājā Sir Rāmaswāmi Mudaliyār. The Chingleput hospital possesses an endowment in Government

securities of Rs. 24,000. In 1903 these institutions treated 182,000 cases, of whom 900 were in-patients. The number of operations performed was 6,000. The expenditure was Rs. 36,000, the greater part of which was met from Local funds.

For some years vaccination in this District has not been progressing, but during 1903–4 there was some improvement, and the number of persons successfully vaccinated was 42,000, or 32 per 1,000 of the population. Vaccination was made compulsory in 1902 in all villages within a radius of five miles from the head-quarters of each sub-magistrate. It is also compulsory in the two municipal towns of Chingleput and Conjeeveram, and in the cantonments of Pallāvaram and St. Thomas's Mount.

[C. S. Crole, *Chingleput Manual*, 1879.]

Chingleput Subdivision.—Subdivision of Chingleput District, Madras, consisting of the CHINGLEPUT, CONJEEVERAM, and MADURĀNTAKAM *tāluks*.

Chingleput Tāluk.—*Tāluk* on the shore of the District of the same name, Madras, lying between 12° 29′ and 12° 54′ N. and 79° 52′ and 80° 15′ E., with an area of 436 square miles. The population in 1901 was 155,213, compared with 137,291 in 1891, the rate of increase during the decade, 13 per cent., being much greater than in the District as a whole. It contains two towns and 298 villages. CHINGLEPUT (population, 10,551) is the head-quarters, and TIRUKKALIKKUNRAM (5,728) is a sacred place of pilgrimage. The demand on account of land revenue and cesses amounted in 1903–4 to Rs. 2,82,000. The soil is mostly red ferruginous loam in the interior, and sandy towards the east. Generally speaking, the country is rocky and poor; but much of it is covered with low hills and scrub jungle, and in appearance it is consequently much more diversified and picturesque than the rest of the District. The only river irrigation is that from the Pālār, by means of spring channels, which bring the water directly to the fields, and flood channels, which fill the tanks when freshes come down. The greater part of the irrigation is from rain-fed tanks with small catchment basins, and is consequently precarious.

Chingleput Town.—Head-quarters of the *tāluk* of the same name in Chingleput District, Madras, situated in 12° 41′ N. and 79° 58′ E., 36 miles south-west of Madras City, and half a mile from the northern bank of the Pālār. Population (1901), 10,551. It owes its importance to the fact that it is a junction on the railway and the head-quarters of the District Court, the divisional officer, the District Medical and Sanitary officer, a District Munsif, and a *tahsīldār*, though it merely consists of several small villages which have been clubbed together to form a municipality. The fort dates from the sixteenth century; and it was once, together with Chandragiri in North Arcot, the capital of

the fallen Vijayanagar kings after their dynasty had been overthrown by the Musalmāns at the battle of Tālikotā in 1565. A local chief subject to these kings granted the Company in 1639 the land on which Fort St. George now stands. Tradition speaks of a certain Timmarājā, possibly the minister of that name of the Vijayanagar king Krishna Deva, as the founder of the fort. Its strength lay largely in its swampy surroundings and the lake which flanks one side. The Muhammadans eventually seized it, and later on the French acquired possession of it in 1751. Clive bombarded and took the fort from the French in 1752; and throughout the campaign it continued of the first importance to the English, serving now as a place of confinement for the French prisoners, now as a dépôt for war material, and again as a centre for operations against the turbulent chieftains of the neighbourhood. After the reduction of Fort St. David, the Madras Government, apprehensive of an attack on Madras, called in all garrisons and stores from outlying forts; and Chingleput was thus abandoned in 1758. A juster view of its importance soon, however, persuaded the Government to reoccupy it, and while the French were advancing from the south a strong garrison was thrown into it from Madras. Lally, the French general, arrived just too late, and, finding it impregnable except by a regular siege, made the mistake of leaving it in his rear and passing on to Madras. During the siege that followed the garrison of Chingleput rendered invaluable assistance, not only by securing the country north of the Pālār, but by sallying out with disastrous effect upon the rear of the investing enemy. In 1780 the British troops, after the destruction of Colonel Baillie's force, found refuge here; and during the wars with Haidar Alī of Mysore Chingleput was once taken by the enemy and reoccupied by the British, and twice unsuccessfully besieged. A cave, a mile east of Chingleput, which was originally intended for a Buddhist hermit's cell, has now been made into a Siva temple.

Chingleput was constituted a municipality in October, 1896. The receipts and expenditure during the five years ending 1902–3 averaged Rs. 13,000. In 1903–4 they were Rs. 17,500 and Rs. 15,300 respectively. The income is chiefly derived from house and land taxes and from tolls. The health of the town is generally good, and the climate, except during the height of the hot winds, moderately cool. It is almost entirely surrounded by hills, none of them much exceeding 500 feet in height; and these, together with the large tank near the fort already mentioned, and the several lesser sheets of water, make it a very picturesque spot, especially after the rains. The big tank is 2 miles long by 1 mile broad, and has been formed by banking up the drainage of the country for 10 miles to the northward. The supply thus received is far in excess of what is required for the irrigation of the 200 acres which are dependent upon it; and it consequently contains

a supply even in the hot season, when other tanks have long since run dry.

Chingleput contains the Reformatory School of the Presidency. This was established in October, 1881, and is intended for the reception of juvenile offenders whom it is undesirable to subject to the risk of contamination by the more hardened criminals of the regular jails. It was for some years under the control of the Inspector-General of Prisons, but in 1888 was transferred to the Director of Public Instruction. Boys are taught useful trades which may enable them to earn an honest livelihood when their term in the school has expired, and endeavours are made to find them employment and keep touch with them after they have left the school. The industries taught include drawing, carpentry and wood-carving, work in iron and other metals, weaving, and tailoring. The school has been a great success.

Chin Hills.—A tract of mountainous country inhabited by hill tribes, on the north-west border of Burma, lying between 21° 45′ and 24° N. and 93° 20′ and 94° 5′ E., with an area of about 8,000 square miles. It forms a parallelogram about 150 miles in length, north and south, and varying in breadth from 100 to 150 miles. It is bounded on the north by Manipur; on the west by portions of the Lushai Hills and by the unadministered Chin area that lies to the north and east of the Northern Arakan District; on the south by unadministered country and by the Pakokku Chin Hills; and on the east it borders on the Upper Chindwin and Pakokku Districts. The tract consists from end to end of a mass of mountains, much broken and contorted and intersected by deep valleys, and is practically devoid of plains and table-lands. Its main ranges run generally north and south, and vary in height from 5,000 to 9,000 feet. Among the most important are the Letha or Tang, which is the watershed between the Chindwin and Manipur rivers; the Imbukklang, which sends the water from its eastern slopes into Upper Burma and that from its western slopes into Arakan; and the Rongklang, which, with its prolongations, is the main watershed of the southern tracts, draining on the east into the Chindwin and on the west into the Bay of Bengal. The rivers of the tract flow into Upper Burma, Arakan, Assam, and Manipur. The largest are the Manipur, which starts from Manipur, enters the Chin territory in the north, and after flowing first south and then east leaves Falam on its right bank, and eventually joins the Myittha, one of the tributaries of the Chindwin; the Boinu, which rises in the Yahow country, runs south through the Haka and independent tracts as far as Aika, whence it turns west to Naring, and then flows north into the Lushai Hills, finally to enter Northern Arakan under the name of the Kaladan and fall into the Bay of Bengal; and the Tyao, which flows south to join the Boinu. The

Physical aspects.

Hri lake, a small mere, about three-quarters of a mile long by one-quarter of a mile broad, is the only important stretch of water in the tract. It is situated near the border, on the Falam-Aijal road, in 23° 22′ N.

The geology of the tract has not yet been worked out in detail, but it has been ascertained that all its rocks belong to the Tertiary period. They are thrown into great folds extending from north to south, and include beds of lower eocene age (Chin shales), Nummulitic limestones, and miocene clays and sandstones. On some of the higher elevations deposits of gravel have been found, and below these a bed of shale of great thickness. In this stratum indications of iron pyrites, sulphur, and ores of a similar nature have been observed in isolated spots, while steatite in fair quantities is found on the lower slopes near the plains. Salt occurs here and there throughout the hills.

Reference is made below to the chief timber trees of the Chin Hills. Except in the dense jungles, the hills are thickly clothed with various kinds of grass, of which the coarse bent-grass is the commonest. Spear and elephant grass are found everywhere, whilst sweet meadow-grass grows round some of the villages. More than forty different kinds of trees, including fruit trees such as orange, lemon, citron, mulberry, fig, peach, &c., have been identified, and various flowers and orchids are to be met with. Among other plants, ivy, mistletoe, maidenhair-fern, sweetbrier, and clover (found at Haka) may be mentioned.

The fauna of the hills is varied, and includes such of the larger beasts as the elephant, the rhinoceros (which is now becoming scarce), the bison, the *tsine* or *hsaing* (*Bos sondaicus*), and the *mithan* (*Gavaeus frontalis*), here believed to be a cross between the wild bison and domestic cattle. All the different species of deer found in Burma are denizens of the Chin jungles; and tigers, leopards, hog, and gibbons abound. A handsome long-haired goat is bred by the Chins, who also keep two breeds of dogs, not only for watch and ward, but for sacrificial purposes.

The climate, at an altitude of between 3,000 to 6,500 feet, is temperate. In the shade and above ground-level, the thermometer rarely rises above 85° or falls below 25°. During the hot season and in the sun very high temperatures have been registered, and on the grass in the cold season ten degrees of frost are not uncommon. In late years the northern tracts, as also some of the higher ranges in the southern tracts, have been visited by severe hailstorms. Rain has been known to fall in every month of the year, but the rainy season proper commences definitely in June and lasts until about the middle of November. The rainfall varies considerably in different parts of the hills; and at Kennedy Peak, Fort White, and Haka, where the jungle is heavy, the amount is greater than at Tiddim, Falam, and elsewhere, where pine-

trees are found and the forest is thinner. The average annual rainfall is as follows: Haka and Fort White, 90 to 100 inches; Falam, 50 to 60 inches; Tiddim, 40 to 50 inches. Severe storms before the rains set in are common in the hills, and much damage has at times been caused by them.

History.

The history of the Chin Hills prior to the annexation of Upper Burma is a record of constant feuds between the different tribes, of expeditions sent by the Chins against the Burmans, the Lushais, and the Manipurīs, and of the resistance offered by the people to counter-expeditions from their foreign enemies. Even after annexation the people, accustomed to look askance at their neighbours, could not bring themselves to believe in the good faith of the overtures made by the country's new rulers. During the cold season of 1887-8 negotiations were opened with the Tashons by the Deputy-Commissioner of the Upper Chindwin District. The suspicions of the tribe were, however, aroused, and they were induced by the Shwegyobyu prince and the ex-Sawbwa of Kale to raid in the valley. In May, 1888, they carried off the Kale Sawbwa, and only released him on the condition that he would join in a rising against the British Government. About the same time the Siyins in the north and the Hakas in the south had been giving trouble. Accordingly at the end of 1888 a column marched against the northern tribes, and the people were severely punished, many of their villages being destroyed. In 1889-90 an expedition was dispatched against the Tashons and Hakas, and a post was established at Haka, while in 1891-2 Falam was occupied and garrisoned, and from July, 1892, the Chin Hill Tracts, which had till then been two charges, were amalgamated into a single charge with head-quarters at Falam. In October, 1892, the Siyins and Ngwengal Soktes treacherously ambuscaded a Burman officer of Government, *Myo-ok* Maung Tun Win, and killed him and several of his escort. The cold season of 1892-3 was in consequence occupied with military operations; a large proportion of their arms were confiscated; the leaders were captured or else surrendered; the principal villages were fined and a house tax was imposed. In 1894-5 the Hakas and southern tribes, and in 1895-6 the Tashons and central tribes, were disarmed. Matters had so far progressed in 1895-6 that it was possible to withdraw the military garrison. In that year the hills were formally declared part of Burma and constituted a scheduled District, their administration being provided for by the Chin Hills Regulation of 1896. In 1897-8 the Pakokku Chin Hill Tract was taken from Pakokku District, and made into a separate Assistant Superintendent's charge. Since 1896 the Chin Hills have, on the whole, been peaceful, though in 1898-9 it was discovered that the Chins had rearmed themselves secretly, and disarmament operations had to be undertaken, during

which the Rumklaos rose and killed three British subjects. The rising did not, however, spread, and was speedily stamped out, and in 1900 the disarmament of the tribes was completed.

Population.

The following are some of the main population statistics obtained at the Census of 1901, the first enumeration that included the Chin Hills in its scope:—

Subdivision.	Number of villages.	Population.	Number of persons able to read and write.
Falam	173	36,858	531
Tiddim	75	16,435	247
Haka	153	33,896	237
Total	401	87,189	1,015

The principal villages are Falam and Laiyo in the Falam subdivision, Tiddim, Losao, and Tunzan in the Tiddim subdivision, and Haka and Thetta in the Haka subdivision; but the tract contains no towns. Animism is the prevailing religion. At the Census Animists numbered 85,200, or about 98 per cent. of the total population, the representatives of other religions being: Hindus, 1,029; Buddhists, 256; Musalmāns, 98, Christians, 33; and others (practically all Sikhs), 542. The American Baptist Mission has established a branch at Haka, and has opened several schools in the hills. There are a few Burmans, Shans, and Nāgas, but the great bulk of the population are Chins, who numbered 83,795. The following are the tribes administered from Falam: the Soktes (including the Kanhow clan), Siyins, Tashons, Yahows, Whennohs, Hakas, Klangklangs, and Yokwas, while in the south are independent villages belonging to none of these tribes. The Soktes, Kanhows, and Siyins occupy the northern tract; the Tashons, Yahows, and Whennohs the central tract; and the Hakas, Klangklangs, and Yokwas and independent villages the southern tract. The compilation of tribal totals was not undertaken at the Census, and the precise strength of the different tribes is not known. The Soktes number probably 9,000; the Siyins, who are divided into four clans, between 1,500 and 2,000. The latter bear a very bad reputation, being feared and detested by all the other tribes, who attribute occult powers to them. By the southern Chins they are called Taute. The Tashons are numerically the most important tribe, and their total has been computed at about 39,000. They are known among the northerners as Palamte, after Falam, their capital. The name given to them by the southern tribes is Shunkla. Their authority extended in the past over a number of other tribes, some of which, however, have regained their independence since the British occupation. The Yahows and Whennohs are two of these communities, numbering about 11,500. The

Whennohs are really Lushais by descent. The Hakas, Klangklangs, Yokwas, and dwellers in some of the independent southern villages call themselves Lais. The Hakas, who have been nicknamed Baungshe, from their custom of wearing their top-knot and turban well forward on their heads, number about 14,000, the Klangklangs about 5,000, and the Yokwas between 2,500 and 3,000. The southern independent villages consist of about 50 autonomous hamlets, peopled by Yoyuns, Shintangs, Lawtus, Yos, and Lais. Their inhabitants number 17,000.

The Chins form a collection of tribes belonging, like the Burmans, the Kachins, the Nāgās, and other communities of Further Asia, to the Tibeto-Burman group of the Indo-Chinese race. There is reason to believe that, soon after the prehistoric ancestors of the Burmans had descended from the hills in the east of Tibet towards the head-waters of the Irrawaddy, and before any material change had come over their ancient form of speech, part of the immigration wave that was eventually to flow down into the Irrawaddy valley was deflected to the west, entered the Chindwin region, and eventually spread southwards and westwards over the hills to the Bengal side of the Chindwin, and down into what is now known as the Arakan Yoma. The Kukis or Chins formed a portion of this side-stream. There are three main geographical divisions of the people: the northern Chins, who inhabit the Chin Hills proper as well as a small area to the north; the central Chins, who, under the name of Kamis or Kwemis, Mros, Chinboks, Chinbons, &c., occupy the Northern Arakan District and the Pakokku Chin Hills; and the southern Chins, the inhabitants of the Arakan Yoma. It is with the northern Chins that we are here concerned. They are a sturdy, warlike, hospitable people, slow of speech, grave of habit, paying great regard to rank and to the ties of the clan, but spoilt by their intemperance, their vindictiveness, their treachery, their greed, their lack of persistence, and their personal uncleanliness. They inhabit villages built on the hill slopes, some of them fortified, and their houses are often solid, elaborate structures. The men's dress consists ordinarily of loin-cloth and blanket, the latter draped toga-like over the upper portion of the body. The women wear skirts, which are shorter in the north than in the south, and in most cases a jacket as well. Home-woven check plaids are notable features in a good many of the costumes. Ear-rings, necklaces, and bangles are worn by both sexes. Millet, maize, and vegetables are the ordinary food of the people. Rice is appreciated, but is not often procurable in the hills. Though the people are in the main vegetarians, *mithan*, dogs, goats, and pigs are consumed by them, and there is hardly any animal food that a Chin will decline to touch. Tobacco is smoked in pipes. The liquor of the country is known as *yu* or *zu*. It is made of fermented grain, and is sucked up through a hollow reed out of the pot in which it has been brewed. Enormous quantities

of it are consumed at the Chin feasts, which have been described as disgusting orgies. Slavery in a modified form still exists among the Chins, but it is fast vanishing, and would disappear no doubt still faster were the slaves habitually ill-treated. As a matter of fact, the condition of the serfs is one of fairly average comfort, and they have very little to gain by freedom. The people are spirit-worshippers, are exceedingly superstitious, set much store by omens, and have a great belief in the efficacy of sacrifice. Their speech varies so enormously from tract to tract that tribes living barely a day's journey apart are often quite incapable of understanding each other. It has been placed in the Kuki-Chin group of the Tibeto-Burman branch of the Tibeto-Chinese language family. In structure it is not unlike Burmese, but the vocabularies of the two tongues differ very widely.

Agriculture.

The surface soil for the most part, where the slopes permit it to accumulate, is either a rich loam or disintegrated shale, in both of which plants and vegetables suitable to the climate and altitude flourish. In the virgin forests a fairly deep surface coating of the richest decayed vegetable mould is found, and this coating enables rice to be grown on the *taungya* system in the north, on portions of the eastern slopes, and in certain parts in the south. The rice-fields are prepared by chopping down all the trees and undergrowth on the side of a hill during the cold season. These are allowed to lie, and when the leaves and branches are thoroughly dry and the time for rain approaches, they are burnt. Rice can be raised on a new clearing for two or three years in succession, after which the land is left fallow. Before each crop is sown, the stubble and any timber which could not be consumed during preceding years is burnt. Rice is sown in May and gathered in October. The crop is entirely dependent on the rainfall, and as often as not is damaged by too much rain. All cultivation on the hill-side is done by manual labour, cattle being never used. Most of the fields are partially terraced by trunks of trees and stone supports. The land is never manured, but is enriched by burning the weeds and stalks of the gathered crops on old ground, and by setting fire to the fallen timber on new ground which has been cleared for the first time. The first three months of the year (January, February, and March) are spent in clearing and weeding the soil, building up the terraces, and generally getting the land into order for sowing. At the first rain in March and April the sowing commences. Rice and millet are each sown separately and broadcast, while sometimes cucumbers, pumpkins, and melons are grown in the same field as millet. Maize is planted, one or two grains in each hole, and in the same field beans of all sorts are also grown, and in some cases millet, while sweet potatoes are put down at any time during the rains. As soon as the seed is in the ground the

fields are carefully guarded against animals and birds, and when the seeds sprout the weeds have to be plucked. The crops are gathered in July and in the three succeeding months. A second crop of millet or black beans is gathered off the same field during the year.

The population actually engaged in agriculture in 1901 was 20,914 males and 11,304 females, whilst of the entire population 84,601 were primarily dependent on agriculture. The principal crops are: millet (*jowār*), rice, and maize, gram, varieties of peas and beans, including the *aunglauk* bean, sweet potatoes, yams, turmeric, ginger, pumpkins, cucumbers, marrows, onions, chillies, brinjāls, and wild varieties of spinach. Melons, chillies, plantains, oranges, citrons, peaches, mangoes, papayas, and sweet limes are grown chiefly in the compounds, as also the tobacco plant. Cultivation would appear to have increased of late, but it is impossible to state the precise extent of the expansion. Potatoes have been introduced, and the Chins, though they do not consume them, cultivate them for sale. There is ample grazing for the live-stock.

Forests, &c.

The forests of the Chin Hills may be divided into five classes, the lowest being the primaeval *in* forest, which flourishes at the foot of the hills, gradually giving way to mixed sub-tropical forest up to an altitude of 3,000 feet. Immediately above this come the pine tracts, which are found at their best at an altitude of about 5,000 feet, here mixed with scrub-oak, which does not usually prosper above 6,000 feet. After this, commencing at an altitude of 4,000 feet, is found the rhododendron. The dwarf bamboo, generally not more than about 6 feet in height, grows on the highest slopes. Below an altitude of 3,500 feet teak attains a large size along the banks of the streams which flow into Burma from the uplands, while in the interior of the hills there are scattered teak trees, though none of any great size. Cutch occurs in fair quantities along the lower slopes adjoining the plains, while in the depth of the hilly country cutch-trees in considerable numbers are met with, at an altitude of about 3,500 feet. The pine is the *Pinus Khasya*, and is the best resin-producing tree in the world. It is found throughout the hills, the trees varying in size. Portions of three 'reserved' forests extend to the hills in the Kaka subdivision, but their boundaries have not yet been demarcated.

Steatite is found in large quantities in the northern hills; on the eastern slopes near the plains sandstone and slate are common, and limestone occurs in a few isolated places. Salt in minute quantities is found throughout the hills. The best-known spring is the Chibu, on the banks of the Tuivai river in 24° N., and a few other brine-wells are scattered about elsewhere. Coal has been discovered to the west of the Kubo valley, but so far only in small quantities and of inferior quality. The steatite quarries were once worked by Burmans, but the cost of extraction was so great that they were abandoned. The Chins

obtain salt by boiling the water obtained from the salt-springs in clay pots. The result is circular slabs of saline matter, which are very far from pure.

For export purposes the manufactures are confined to cane and bamboo mats and baskets, while for local use spears, *das*, hoes, and knives are forged. The iron is procured from Burma, and blacksmiths are found throughout the hills, but Wunhla in the Southern Chin Hills is the only village that has a reputation for ironwork. Hairpins, ear-rings, bangles, armlets, and metal beads are manufactured, as well as domestic implements. Earthen pots are made (by women only) in several villages; waterproof coats and hats are manufactured everywhere, Rawvan in the south being specially noted for this industry. The coats are made out of the bark of a tree, and the hats of bamboo, bark, and palm leaves. Cotton is grown in the hills, and cotton-weaving is universal. The method is laborious on account of the primitive form of loom used, but the cloth turned out, although of a rough texture, is lasting. The work is generally done by the women slaves of the household during their leisure. The weaving of the silk mantles used extensively as a wrap by the southern chiefs is carried out exclusively by their wives or daughters, slaves never taking part in the work, and the garments are seldom if ever sold. The weaving, which is considered an accomplishment, is an extremely slow process, on account of the intricate patterns that are woven into the texture; and it is not unusual for a woman to take two or three years in completing a length of the fabric. Adjoining the southern boundary Burmans rear silkworms, and dispose of the silk to the Chins.

Trade and communications.

The export trade is small, consisting for the most part of beeswax, the outside husk of the ear of maize, and cane mats. The principal articles of the import trade, which is increasing yearly, are salt, iron, gongs, brass, cattle, beads, silk thread, and coloured cotton yarn. Most of the imports are obtained from Burma; and the chief centres of Chin trade are Yazagyo, Kalemyo, Indin, and Sihaung in the Upper Chindwin, and Kan and Gangaw in Pakokku District. A trade with Manipur is springing up, while Burmans from as far off as Mandalay are frequently to be found hawking their goods about the hills, and even beyond the western border. The principal trade routes are the Kalewa-Kalemyo-Fort White route, the Indin-Falam route, the Haka-Kan route, and the Manipur-Tiddim route. The Falam-Aijal road, which connects the Chin with the Lushai Hills, is helping to develop a trade with the Lushai country and Assam. The Chins when trading carry their goods themselves, but traders from Burma generally use pack-bullocks.

The main roads maintained from Provincial funds are the following. The Haka-Pyinthazeik road (with a branch from Tiddim) is an un-

metalled road of a total length of 133 miles, of which 124 miles lie in the Chin Hills, and the remainder within the Upper Chindwin District. It crosses the Pao and Manipur rivers by means of wire-rope suspension bridges, and gives through communication between all the stations and posts in the hills, and also connects the hills with Pyinthazeik on the Myittha. There are fourteen resthouses and camps on the road. The Falam-Indin road is an unmetalled track of a total length of 47 miles, of which 39 miles are within the Chin Hills, and the remainder in Upper Chindwin. It connects Falam with the left bank of the Myittha river at a point opposite Indin, and is provided with five resthouses. The Haka-Kan road, an unmetalled mule-road, 55 miles in length, leads from Haka to the Chin Hills boundary, and on into Pakokku District. The Haka-Kunchaung road, an unmetalled mule-track 44 miles long, connects Haka with Kunchaung, a camp on the Manipur river. The Falam-Tyao river mule-road is an unmetalled road intended to connect Falam with Aijal, the head-quarters of the Lushai Hills. Its length to the Tyao, the boundary between the Chin and Lushai Hills, is 63 miles. It crosses six rivers, all bridged by timber lattice-girder bridges, and has six resthouses along it.

Administration.

The Chin Hills contain three subdivisions, and are administered by a Superintendent, who is an officer of the Burma Commission, with head-quarters at Falam, and three Assistants posted at the subdivisional head-quarters—Tiddim, Falam, and Haka. The Assistant Superintendents are ordinarily members of the Provincial civil service or the Police department. There is a civil Medical officer at Falam. The Chin Hills form a subdivision of the Chindwin Public Works division, and are in charge of an Assistant Engineer with head-quarters at Falam. A treasury officer is stationed at Falam. There are no Forest officers.

Under the Chin Hills Regulation, 1896, the Chin Hills constitute a Sessions division and a District for criminal, civil, revenue, and general purposes, and the Superintendent is the Sessions Judge. As Sessions Judge he can take cognizance of any offence as a court of original jurisdiction, without the accused being committed to him by a magistrate. The Penal Code and Criminal Procedure Code with certain modifications are applicable to Chins, and for the purpose of the latter Code the Local Government exercises the power of a High Court. So far as regards persons other than Chins, the law in force is the same as that of Upper Burma. Each Assistant Superintendent is invested with magisterial powers. Under the Regulation headmen are held responsible for peace and order within their territories, and are empowered to try certain cases according to local custom. Special rules have been framed by the Local Government for the trial of civil suits between Chins.

The main sources of revenue are tribute and *thathameda*. The former, levied at the rate of Rs. 2 per house, yielded Rs. 41,900 in 1904-5; and *thathameda* realized Rs. 1,190. The other items of receipt are insignificant.

A sergeant is stationed at the head-quarters of each subdivision, but beyond these no civil police are maintained in the hills. Falam, the head-quarters of the District, possesses a small lock-up with accommodation for 12 prisoners. The tract is garrisoned by a military police battalion (the Chin Hills battalion), officered by a commandant and 6 assistant commandants, and consisting of 8 companies and 60 gun *kahārs*, distributed as follows: 3 companies (with 2 mounted guns) at Falam, 2 companies at Haka, 2 companies at Tiddim, and 1 company at Fort White. These furnish guards at Nos. 2 and 3 Stockades, Kalemyo, Kalewa, Bamboo Camp, Pine-tree Camp, Lomban, Minkin, Pioneer Camp, and Yelakun.

A Government vernacular school has lately been opened at Falam, and the attendance of pupils is good. The American Baptist Mission has established schools at Haka, Tiddim, Koset, Tunzan, and Yokwa. The Haka school has not made much progress as yet, but the others show satisfactory results. For the school at Haka a grant-in-aid of Rs. 2,500 has been given by Government. The expenditure on the school at Falam (opened in 1902) was Rs. 523 in 1904-5. No fees are taken at any of the schools. There are no *pongyi kyaungs* in the hills, and consequently, outside the institutions specified, education is at a very low ebb. The Census of 1901 showed that, even including natives of India and Burmans, the proportion of literate males per thousand of the male population was only 2·3 per cent. (as compared with 53 in the adjoining Upper Chindwin District), and that of literate females 0·1 per cent. of the female population. For both sexes together the proportion was 1·2 per cent.

There are 4 military police hospitals, with a total accommodation for 96 men. Besides 3 civil hospitals, a civil dispensary has been opened on the Falam-Aijal road, and a Hospital Assistant has been placed in charge. The civil hospitals have accommodation for 28 males and 2 females; and in 1903 the number of cases treated was 21,885 (including 557 in-patients), and 122 operations were performed. The total expenditure amounted to Rs. 5,800, of which Rs. 5,300 was provided by Government, and Rs. 300 from subscriptions.

No vaccination establishment was in existence until the latter part of 1901, when a vaccinator was employed. In 1900-1, 582 persons were vaccinated by the officers in charge of the hospitals; in 1901-2, 825; in 1902-3, 1,809; and in 1903-4, 3,617.

[B. S. Carey and H. N. Tuck, *The Chin Hills* (Rangoon, 1896).]

Chin Hills, Pakokku.—A tract of hilly country west of Pakokku

District, Burma, lying between 20° 40′ and 21° 45′ N. and 93° 30′ and 94° 9′ E., with an area of about 2,250 square miles, and inhabited by Chins. There is no distinctive native name for the tract. On its east is Pakokku District; on its north-east the Chin Hills; on its south-east and south Minbu District; on the south-west for a length of about 14 miles the tract borders on Akyab; thence westward and north-westward it is bounded by unadministered Chin country, from which, however, it is distinctly marked off by the Arakan Yoma in the south, and by a spur from that range farther north. This spur is the backbone of the Pakokku Chin Hills. It branches off from the Yoma at about 21° 45′ N., at a peak called Aisatung, and ends in the south-east corner of the tract. It is 2,000 to 3,000 feet higher than the main range, which reaches an elevation of about 5,000 to 7,000 feet along the country now being described. The several offshoots from this spur and the deep valleys between form the hill tract. There is no flat country anywhere. Of the subsidiary spurs the most prominent is that which cuts the tract laterally into two almost equal parts, and rising to 10,400 feet in MOUNT VICTORIA, possesses the highest peak in all the Chin country. Lower down on this offshoot, at an elevation of 6,500 feet, is Kanpetlet, the head-quarters of the tract. The chief rivers are the Maw, Yaw, and Mon. The first runs northwards into the Myittha, and belongs to the drainage of the Chindwin, while the others have a generally southerly course and empty themselves into the Irrawaddy. The Mon is the largest; it rises under Aisatung, skirts the northern half, and flows through the southern half of the tract, finally entering Minbu District.

Physical aspects.

So far as is known, the geology and botany of the tract differ in no essential particulars from those of the CHIN HILLS. In addition to the ordinary kinds of wild beasts found in Upper Burma (the tiger, the elephant, &c.), the only noteworthy animals are the *gural* (*Cemas goral*) and the serow (*Nemorhaedus bubalinus*). Different kinds of monkeys and flying squirrels abound.

Till recently no observations of rainfall have been taken, but it is estimated that about 100 inches of rain fall in the year. At Kanpetlet the average is about 120 inches. From June to November the climate is very humid and depressing, a day of uninterrupted sunshine being rare; and even when it is not raining heavy mists usually envelop the whole country. From the middle of December to the end of March the climate is cold, but dry and altogether enjoyable. The day temperature is then about 75°, and the night temperature 35° to 40°. Frost is constantly experienced at the higher levels, and in exposed spots the mercury has been found to register 27° at the coldest time of the year. High winds about the end of March and the beginning of April are followed by the early rains, which fall intermittently in April and May.

In the days of Burmese rule the hold over the tract was of the lightest. No tribute was paid to the king of Burma, though a few of the villages nearest the plains gave the *myothugyi* they wished to propitiate a viss of beeswax and a cane mat yearly, in order to be allowed to trade. The bearers of these offerings were the only Chins who visited Burma with friendly intentions; but the number of hostile visitors to the plains was large, for raids were frequent, and were usually undertaken in order to obtain captives to be held to ransom. Bloodshed was avoided except when an expedition was made to avenge a Chin who had been killed by Burmans, and the leader of a foray had to give compensation for any loss of life or limb sustained by his followers. In return for this, however, he had the satisfaction of receiving most of the plunder taken and the captives made. The *thugyis* of certain Taungtha villages in Burma were recognized as go-betweens in the negotiations for the ransom of captives. The Chins attacked each other only to obtain payment for a debt, but inter-village fighting due to blood-feuds was common. After annexation, raids by the Chins came to the notice of the British as they advanced westward from Pakokku. The tract was visited by a military police column in 1889–90, and it was then decided to place the Chins under the supervision of the officer in charge of a subdivision to be formed along the border. In January, 1891, however, the Chins attacked this officer's head-quarters at Yawdwin. The sequel to this outbreak was the establishment of a military post in the hills at Mindat Sakan in 1891–2. After this the Chins remained fairly quiet till December, 1896, when they perpetrated an exceptionally savage raid, and in the following month attacked the post at Mindat. On this it was decided to constitute the country a Chin tract under the Chin Hills Regulation, and to station a special officer in the hills themselves instead of at their border. An Assistant Superintendent with all the powers of a Superintendent was accordingly posted to the charge of the tract in 1897. Since then there have been no serious raids, and the border may now be said to be entirely free from crime. In 1902 the head-quarters of the Assistant Superintendent were moved from Mindat Sakan to Kanpetlet on the slopes of Mount Victoria. This measure left the Chin police at Mindat unsupported; and the post there was twice raided by Chins from the unadministered tract, in consequence of which a post was established in 1903 at Hilong on the western border and garrisoned by Chin police.

History.

At the Census of 1901 it was ascertained that the population of the tract was 13,116, distributed in 264 villages. The number of Chins was 12,508, of whom 9,013 were Chinboks, 2,469 Yindus, and 1,026 Chinbons. The Chinboks, with the exception of twelve villages of the tribe (the so-called Chinmes) on

Population.

the Upper Mon, just beyond the border, are found only in the Pakokku Hill Tracts, while the Yindus and Chinbons overflow into the adjoining country, the first to the west, as far as the Arakan Hill Tracts, the latter to the south-west and the south. In reality they far outnumber the Chinboks. All these tribes belong to the central division of the Chin race (*see* CHIN HILLS). It should be borne in mind that this nomenclature has come from the Burmans, and is, including the term Chin itself, entirely unknown in the hills. For convenience of reference, however, it is retained. The Chinboks are found north of Mount Victoria, the Yindus occupy the country to the south and south-west of that eminence, and the Chinbons live south of the Yindus. The Yindus and the Chinboks belong practically to the same tribe. The Chinbons, on the other hand, are a distinct community, and their language is unintelligible to the other Chins. The inhabitants of the tract are practically all Animists. The Chinbok men wear a very scanty loin-cloth, and are seldom seen without their bows and arrows. The women's dress consists of a smock and a short skirt. The females all have their faces tattooed. Both sexes are fond of primitive ornaments. The Chinbons are as a rule somewhat more fully clad than the Chinboks.

Agriculture.

The *taungya* system of cultivation is practised, and every Chin family in the tract engages in cultivation. The ground for the *taungya* is selected shortly after the preceding harvest, the clearing of the jungle is completed by February, and the *taungyas* are burnt in March and April. When the first rains fall about the middle of April festivals to propitiate the *nats* are held, after which each one is at liberty to sow his plot. The land is not ploughed. Small grain like rice or millet is sown broadcast, after the surface of the ground has been laboriously scratched all over with small hoes. When the seed is large a hole is made in the soil, and the seed is dropped into it and covered over with earth by hand. A *taungya* is worked for from one to four years, and is then left for six to sixteen years before it is worked again.

The chief food-grains are *pum* (a white grain about the size of coarse sago), *sat*, maize, beans, rice, and barley. *Pum* is never sown on newly cleared land, and does best on a patch from which rice or *sat* has been taken. Tobacco is cultivated in all the villages, and a red millet is grown from which the hill folk brew a liquor not unlike cider, and fairly palatable when fresh. Most of the vegetables known in Upper Burma are grown.

Up to about 3,000 feet along the borders of Burma are found bamboo and the timber trees common to similar country in Upper Burma. Above these stretches a belt of *indaing*, interspersed with weakly pines and oaks. From 4,500 to 8,000 feet the chief trees are *Pinus Khasya*, oaks, and rhododendrons. Among other trees the yew, wild cherry,

walnut, peach, and crab-apple have been noticed in the forests at this elevation. Above 8,500 feet are stretches of gnarled moss-covered oaks in the sheltered spots, and dwarfed rhododendrons and holly in the open grass lands. Dense patches of dwarf bamboos occur at about 8,000 feet. A continuation of the Kyauksit forest Reserve extends some way into the hills, but otherwise there is no 'reserved' area in the tract.

Practically nothing is known at present of the mineral resources of the tract. Steatite is found near the Pakokku border, but nothing else of economic value has been discovered.

The hills have nothing to show in the way of arts or manufactures. The only hand industries are rude weaving, pottery, and the making of cane mats, while a few blacksmiths fashion primitive spear and arrow-heads from iron obtained from the plains.

Trade and communications

Petty internal trade is carried on by barter, while for large transactions the currency used is ear-rings. These are shaped like flat key-rings, and are made of an alloy of gold, silver, and brass. They are said to have been originally obtained from Arakan, but they do not seem to be imported now. The Chins carry on a small trade with Burma, the exports consisting of beeswax, honey, and mats, and the imports of salt, cotton twist, beads, and gongs.

The villages of the tract are connected by rough jungle paths, but these are so bad that only a resident of the hills would voluntarily travel by them, and they are entirely impracticable for beasts of burden. The following mule-tracks have, however, been made by the Public Works department: from Saw to Kanpetlet, 12 miles, and thence 7 miles farther up the Mount Victoria range to Kyetchedaung; from Mindat to Hilong, 14 miles, and on to the trans-border village of Khrum; from Kanpetlet to Mindat, 32 miles. Several routes lead from the Irrawaddy; the first from Pakokku via Pauk is nine to eleven marches, the second from Zigat, opposite the steamer *ghāt* of Sale, is six. A third from Sinbyugyun is also six marches. Furnished rest-houses have been provided on both routes, and also on the two mule-tracks above mentioned.

Administration.

The tract is under the immediate control of the Commissioner of the Minbu Division, to whom the Assistant Superintendent is directly subordinate. The head-quarters of the Assistant Superintendent are at Kanpetlet, on the high ground of which Mount Victoria forms the highest point. The 264 villages in the tract are divided into ten groups, each of which is supervised by a paid headman, and a headman is in charge of each village. The tract forms part of the Yaw Forest division, and is a subdivision of the Pakokku Public Works division.

The only court is that of the Assistant Superintendent, who tries criminal cases and decides civil suits, besides sitting as the court of a Superintendent or a District Magistrate, and, when necessary, as that of a Sessions Judge, under the control of the Local Government (represented by the Commissioner of Minbu) as High Court. Crime is on the whole light; but, as might be expected of a people as barbarous and vindictive as the Chins, offences against the person are committed at times.

Tribute at the rate of R. 1 a house is collected yearly, and a small amount of revenue is derived from the sale of the right to quarry soapstone and from licences to boil cutch. The total revenue from all sources in 1904–5 amounted to over Rs. 2,800. Nothing in the shape of land revenue is collected. All land, cultivable or uncultivable, is claimed by some individual or family, who trace its ownership back for generations. Land can be bought outright, an ear-ring worth about Rs. 15 being sufficient to purchase an area that can be worked by three families; but there is not much traffic in immovable property.

The military police garrison, which is furnished by the Magwe battalion, consists of a detachment of 40 men stationed at Kanpetlet. The actual policing of the tract is in the hands of a force of Chin armed police, composed of 2 head constables, 3 sergeants, and 71 constables, who, in addition to their other duties, furnish a detachment of 30 men stationed at Hilong to watch the border. A hospital is maintained at Kanpetlet, but is very little patronized by the Chins.

Chīni.- Head-quarters of Kanāwār (Chīni *tahsīl*), Bashahr State, Punjab, situated in 31° 31′ N. and 78° 19′ E., about a mile from the right bank of the Sutlej, in a slight depression on the southern slope of a lofty mountain, at an elevation of 1,500 feet above the river and 9,085 above sea-level. It is naturally irrigated by a large number of little rills, and surrounded with vineyards, whose grapes, dried into raisins, form a principal article of food for the people. Large dogs, specially trained for the purpose, deter the bears from plundering the vines. Chīni was the favourite hill residence of Lord Dalhousie. The Moravian Mission has a station here, and the place contains a handsome *tahsīl* building.

Chiniot Tahsīl.—*Tahsīl* of Jhang District, Punjab, lying between 31° 23′ and 32° 4′ N. and 72° 24′ and 73° 14′ E., with an area of 1,012 square miles. It includes the villages on both banks of the Chenāb. The population in 1901 was 200,676. It contains the town of CHINIOT (population, 15,685), the head-quarters; and 361 villages. The land revenue and cesses amounted in 1905–6 to 2·64 lakhs. A portion of the *tahsīl* was incorporated in the new District of Lyallpur, formed in 1904. Ten years before this, the *tahsīl* consisted of a few villages along the Chenāb, with the steppes of the Kirāna and

Sandal Bārs to the north and south. The waste has now been brought under cultivation, owing to irrigation from the Jhelum and Chenāb Canals. There is little to break the monotony of the plains on either side of the river, except the knolls of the quartzite outcrop near Chiniot town, and the Kirāna hills, of similar composition, close to the Shāhpur border.

Chiniot Town.—Head-quarters of the *tahsīl* of the same name in Jhang District, Punjab, situated in 31° 43′ N. and 73° 0′ E., 52 miles north-east of Jhang town. Population (1901), 15,685. The town is a very old one, and is perhaps to be identified with Sākala, the capital of the White Huns, which was visited by Hiuen Tsiang. It suffered much from the Durrāni inroads during the last half of the eighteenth century, and also during the troubles of 1848, being the scene of constant sanguinary struggles between the leaders of local factions. It now bears a prosperous aspect, most of the houses being of excellent brickwork, lofty and commodious, especially those of the Khoja traders, who have large business dealings with Amritsar, Calcutta, Bombay, and Karāchi. It boasts a handsome mosque built by Nawāb Sadullah Khān Tahīm, governor of the town under Shāh Jahān; also a shrine dedicated to Shāh Burhān, a Muhammadan saint, revered by Hindus and Muhammadans alike. The surrounding country is well wooded, and its scenery attractive. The town is famous for brass-work and wood-carving; its masons are said to have been employed on the Tāj Mahal at Agra, and the architect of the Golden Temple at Amritsar was a Chiniot mason. It has benefited by the Chenāb Canal, and conducts a large trade in wheat, cotton, and other agricultural produce. The municipality was created in 1867. The income during the ten years ending 1902–3 averaged Rs. 17,800, and the expenditure Rs. 16,300. The income in 1903–4 was Rs. 18,500, derived mainly from octroi; and the expenditure was Rs. 20,100. It maintains a dispensary and an Anglo-vernacular middle school.

Chinnūr Tāluk.—*Tāluk* in Adilābād District, Hyderābād State, with an area of 790 square miles, including a large forest tract. It is separated from the Central Provinces District of Chānda on the east by the Pranhitā river. The population in 1901, including *jāgīrs*, was 56,591, compared with 52,889 in 1891. The *tāluk* contains one town, CHINNŪR (population, 6,561), the head-quarters; and 110 villages, of which 11 are *jāgīr*. The land revenue in 1901 amounted to Rs. 64,000. The river Godāvari forms its southern and the Pranhitā its eastern boundary, the soils in the vicinity of these rivers being alluvial. Rice is largely raised with the help of tank-irrigation.

Chinnūr Town.—Head-quarters of the *tāluk* of the same name in Adilābād District, Hyderābād State, situated in 18° 51′ N. and 79° 48′ E., 10 miles north of the Godāvari river. Population (1901), 6,561

Chinnūr contains the *tāluk* and police inspector's offices, a post office, and a dispensary. Strong and very durable cloth is made here from *tasar* silk.

Chinsura.—Town in Hooghly District, Bengal, situated in 22° 53′ N. and 88° 24′ E., on the right bank of the Hooghly river, a short distance to the south of Hooghly town. Chinsura is now included in the Hooghly municipality (*see* HOOGHLY TOWN), and the two towns contained in 1901 a joint population of 29,383. The Dutch established themselves at Chinsura in the early part of the seventeenth century and held the place till 1825, when it was ceded by the Netherlands to Great Britain in part exchange for the English possessions in Sumatra. It was formerly used as a military invalid dépôt, and for regiments arriving from or proceeding to England; but in 1871 the military station was abandoned and the barracks were leased to the residents and utilized for schools, a post office, and other public purposes. Chinsura contains the courts, the Imāmbāra Hospital with 40 beds, and a female hospital with 13 beds. The church and a large house on the river banks at a short distance to the north of it were built by the Dutch, the latter being the official residence of the Governor. The Armenian Church erected in 1695 is a building of considerable antiquarian interest. Chinsura was the head-quarters of the Burdwān Division from 1879 to 1884; they were then removed to Burdwān, but were again transferred to Chinsura in 1896. The Hooghly College is finely situated on the bank of the river near the church; it was founded and endowed in 1836 from a portion of the trust fund of the Saiyidpur estate in Jessore District. There are 150 students in the college, which teaches up to the B.A., and in some subjects to the M.A., standard of the Calcutta University; and 200 boys in a school attached to the college. This school, the Chinsura Free Church Mission school, and the Chinsura Training Academy are all higher English schools. A public library was established in 1854 and is partly endowed.

Chintāmani. Central *tāluk* of Kolār District, Mysore, lying between 13° 18′ and 13° 40′ N. and 77° 57′ and 78° 13′ E., with an area of 272 square miles. The population in 1901 was 57,144, compared with 49,888 in 1891. The *tāluk* contains one town, Chintāmani (population, 2,430), the head-quarters; and 341 villages. The land revenue demand in 1903-4 was Rs. 1,22,000. The northern half is a stony tract, but with good tanks and wells. The southern half is an open rolling country of red soil. Sugar-cane thrives well, and the *rāgi* grown here is superior. Blankets and coarse cloth are made in some parts, and a finer cloth for *kamarbands*. Gunny for sacking is woven at Dimbala and Ronūr.

Chintpurni.—Mountain range in Hoshiārpur District, Punjab. *See* SOLA SINGHI.

Chiplūn Tāluka.—Central *tāluka* of Ratnāgiri District, Bombay, lying between 17° 12′ and 17° 37′ N. and 73° 8′ and 73° 45′ E., with an area of 671 square miles, including the petty subdivision (*petha*) of Guhāgar. It contains one town, CHIPLŪN (population, 7,886), the head-quarters; and 208 villages. The population in 1901 was 190,746, compared with 185,341 in 1891. The density, 284 persons to the square mile, is slightly below the District average. The demand for land revenue in 1903-4 was 1·46 lakhs, and for cesses Rs. 10,000. The *tāluka* stretches from the coast inland to the watershed of the Western Ghāts, and is throughout more or less hilly and rugged. The seaboard, with the exception of an open sandy roadstead 5 miles long, extending on each side of the village of Guhāgar, is broken and irregular. Close to the shore rise a series of high laterite plateaux, which stretch 10 miles inland, where they are succeeded by a belt of lower undulating land; but on meeting the spurs and ravines thrown out by the great mountain chain of the Western Ghāts the country becomes very rugged and precipitous. The only rivers of importance are the Vāshishti in the north and the Shāstri in the south, both of which are tidal for a distance of about 25 miles from their mouths, and are navigable within these limits by boats of moderate size. The annual rainfall averages 141 inches.

Chiplūn Town (originally Chitapolan).—Head-quarters of the *tāluka* of the same name in Ratnāgiri District, Bombay, situated in 17° 32′ N. and 73° 31′ E., 108 miles south-east of Bombay and about 25 miles from the coast, on the south bank of the river Vāshishti, which is navigable by boats of nearly 2 tons. Population (1901), 7,886. Chiplūn is a prosperous commercial town, near the head of the Kumbhārli pass, one of the easiest routes from the Deccan to the seaboard. It contains good roads; an efficient conservancy establishment is maintained, and the streets are lighted. A reservoir formed by a masonry dam thrown across the bed of a small river 3 miles south of the town, provides an ample water-supply. The municipality dates from 1876, and had an average income during the decade ending 1901 of Rs. 13,400. In 1903-4 the income was Rs. 12,500. About a quarter of a mile south of the town are some Buddhist excavations and a fort with a reservoir on a detached hill commanding the creek. Chiplūn is the home of the Konkanasths or Chitpāvan Brāhmans, the name Chitpāvan being explained as a corruption of the old name, Chitapolan. The town contains a Subordinate Judge's court, a dispensary, and five schools, including two Anglo-vernacular schools and a girls' school, attended by 328 boys and 31 girls.

Chīpurupalle.—Northernmost coast *tahsīl* of Vizagapatam District, Madras, lying between 18° 2′ and 18° 32′ N. and 83° 26′ and 83° 57′ E., with an area of 549 square miles. The population in 1901 was 170,532,

compared with 156,570 in 1891. The *tahsīl* contains 268 villages, the head-quarters being at Chīpurupalle. The demand for land revenue and cesses in 1903–4 was Rs. 49,000. The *tahsīl* is flat, and a large part of it is covered with low scrub jungle.

Chirakkal.—Northernmost *tāluk* of Malabar District, Madras, lying between 11° 47′ and 12° 18′ N. and 75° 11′ and 75° 41′ E., with an area of 677 square miles. It contains 43 *amsams*, or parishes. The population increased from 310,941 in 1891 to 320,107 in 1901. The demand for land revenue amounted in 1903–4 to Rs. 3,39,000. It contains the seaport of CANNANORE (population, 27,811), which is also the head-quarters, and the towns of TALIPARAMBA and VALARPATTANAM. In the north-eastern corner of the *tāluk* two hill tribes are found, the Vettuvars and the Mavilars, who supply the agricultural labour of the country and are practically agrestic slaves. The females of these tribes wear nothing but green leaves, which are changed daily at noon. An attempt at reform in the matter of dress was once made, but to no purpose, as the individuals who tried the experiment of wearing clothes all came to untimely ends. The north-east and east of the *tāluk* are bounded by the great range of the Ghāts and the western side by the Indian Ocean. Along the coast the beach is generally low and sandy, but immediately behind it rises the high lateritic formation which is characteristic of this part of Malabar; and the contrast between the red soil which this forms and the many groves and fields which lie in the hollows among it is exceedingly picturesque.

Chīrāla.—Town in the Bāpatla *tāluk* of Guntūr District, Madras, situated in 15° 50′ N. and 81° 21′ E., 8 miles along the sand ridge from Bāpatla town. Population (1901), 16,264. It has been constituted a Union, and a prosperous weaving industry is carried on.

Chirāwa.—Town belonging to the Khetri chiefship in the Shekhāwati *nizāmat* of the State of Jaipur, Rājputāna, situated in 28° 14′ N. and 75° 41′ E., about 100 miles north of Jaipur city. Population (1901), 7,065. There is a picturesque little fort, but it is in a dilapidated condition. Some wealthy bankers reside in the town, who have built *dharmsālas* or inns for travellers; two of them maintain a vernacular school each, at which 158 boys attended in 1904–5. There are also 4 indigenous schools attended by 200 boys. Chirāwa possesses a combined post and telegraph office, and the Rājā of Khetri keeps up a hospital which has accommodation for 4 in-patients.

Chirkhāree.—Name of a State and town in Central India. *See* CHARKHARĪ.

Chiroda.—Petty State in KĀTHIĀWĀR, Bombay.

Chitākul.—Village in the Kārwār *tāluka* of North Kanara District, Bombay, situated in 14° 51′ N. and 74° 10′ E., on the coast, about 4 miles north of Kārwār. Population (1901), 4,796. Though it is

now confined to the village, the name Chitākul once included a considerable tract of land. Under the forms Sindabur, Chintabor, Cintabor, Cintapor, Cintacola, Cintacora, Chittikula, and Chitekula, the place appears in the writings of many authors, from the Arab traveller Masaudi (about 900) to the English geographer Ogilby (about 1660). It is frequently referred to in the accounts of the vicissitudes of Portuguese power in India. In 1715, according to a local account, Basva Ling, a Sonda chief (1697–1745), built a fort at Chitākul, on the north or right bank of the Kālınadī, and called it Sadāshivgarh after his father. From this time the village has locally been called Sadāshivgarh. The fort is built on a flat-topped hill 220 feet high, with a steep and inaccessible face on the side facing the Kālīnadī. In 1752 the Portuguese declared war against the Sonda chief, and after a slight conflict carried the fort, which they greatly strengthened. Two years later they restored the fort to the Sonda chief. In 1763 it was taken by Haidar Alī's general, Fazl-ullah Khān. In 1783 a detachment of General Mathew's force was sent to occupy Sadāshivgarh. In 1799 it was garrisoned by Tipū's troops.

Chitaldroog District (properly *Chitrakaldurga*).—District in the north of Mysore State, lying between 13° 35′ and 15° 2′ N. and 75° 38′ and 77° 2′ E., with an area of 4,022 square miles. It is bounded on the north by the Bellary District of Madras; on the east by Anantapur District; on the south-east by Tumkūr; on the south-west by Kadūr; and on the west by Shimoga and the Dhārwār District of Bombay.

Physical aspects.

The whole of the District is included in the valley of the Vedāvati or Hagari, with the Tungabhadra running for a few miles along the north-western boundary. The Vedāvati enters the District in the south-west and flows in a north-easterly direction beyond Hiriyūr. From this point, where the stream begins to take the name of Hagari, it runs north, within a few miles of the main eastern boundary, and near the eastern base of the Molakālmuru projection crosses into Bellary District. During the hot months it is for the most part dry, but supplies a number of wells sunk in its sandy bed. The Tungabhadra receives at Harihar the Haridra, which flows out of the Sūlekere lake. The District is crossed by a belt, about 20 miles broad, of intermittent parallel chains of hills, mostly bare and stony, through which are several *kanaves* or passes. The eastern line runs from the frontier beyond Kankuppa to Chitaldroog and Jogimaradi (3,803 feet) to the west of Hiriyūr. The western line runs from Anajī by Māyakonda to Hosdurga (3,226 feet). Around Molakālmuru in the north are some clusters of rocky hills, of which Nunke Bhairava is 3,022 feet high, Jatinga Rāmesvara 3,469 feet, and Santigudda 2,595 feet. Except in the region of the hilly belt, the whole extent of the District north and east is an open and

level plain, entirely destitute of picturesque features, but possessing at certain seasons in favourable spots an expanse of verdant cultivation. Though there are no trees, excellent pasture is abundant, while the black and dreary-looking soil seems to require only the contact of water to develop its productiveness. To provide irrigation, the Māri Kanave dam is being built on the Vedāvati, which will form a reservoir with an area of 34 square miles. To the north and west of Chitaldroog the surface of the country is undulating, and covered with thick and rich grass. Trees are few in number.

The ranges of hills running through the middle of the District form part of the Chiknāyakanhalli schist band, which is a continuation of the Dambal band in Bellary District. The great granite massif of Chitaldroog divides it into two horns, and thence it runs south-south-west into Tumkūr District. The beds all strike parallel to the schist band, and for the most part dip steeply to the east. Talya is on the western gneiss, upon which rests a series of quartzites and some schistose hornblendic rocks. Above these are conglomerates, the pebbles of which are quartz or quartzite, much flattened, and the matrix is gritty, with much biotite or hornblendic material. East of this are ridges of hematite quartzite with some limestone beds, bordering a valley occupied by soft argillaceous schists. The wide stretch of flat country between the conglomerates and the eastern gneiss is occupied by felspathic, chloritic, and micaceous schists, with some pale hornblendic members. In this northern portion of the band extensive basic trap flows are noticed, the largest being that on the south-eastern side of the Chitaldroog granite which forms the Jogimaradi hill. The horseshoe of hematite-quartzite beds running round the same granite mass is also noteworthy.

Chitaldroog is the driest part of Mysore. The flora is practically the same as in Tumkūr District, though not so luxuriant. Great undulating plains, covered frequently with nothing but stones and dwarf species of mimosa, are dotted at wide intervals with villages lying in the hollows, sometimes having a few trees round them. These are the characteristics of fully one-third of the District. The valley of the Vedāvati looking towards Hosdurga is not so bare, and in the north are jungles of *karāchi* (*Hardwickia binata*).

The annual rainfall at Chitaldroog averages 25 inches, the highest monthly average being 4 inches in both September and October. The mean temperature is 74° in January and 83° in May, with a diurnal range in both of 23°. In July the mean is 75° and the diurnal range 14°; in November the mean is 74° and the diurnal range 18°.

The discovery of edicts of Asoka in the Molakālmuru *tāluk* afford evidence that the north of the District was included in the Maurya empire in the third century B.C. The find of Sātakarni coins near

Chitaldroog, and of Sātakarni inscriptions in the Shikārpur *tāluk* (Shimoga District), show that the Andhras or Sātavāhanas were in power here about the second century A.D. They were followed by the Kadambas, who became subject to the Chālukyas in the sixth century. Under the Gangas, Rāshtrakūtas, and Chālukyas, in succession, we find the Pallavas called Nonambas or Nolambas [1], from whom the District, with neighbouring parts to the north and east, obtained the name of Nolambavādi or Nonambavādi, a 'thirty-two thousand' province [2]. Their capital was at Penjeru or Henjeru, now Hemāvati, in Anantapur District, close to the eastern border of the Hiriyūr *tāluk*, but at one time was at Kampili on the Tungabhadra, north of Bellary. In the eleventh and twelfth centuries the Pāndyas of Uchchangi were ruling Nolambavādi. The Hoysalas then came into possession; but towards the end of the thirteenth century the Seunas, or Yādavas of Deogiri, gained some advantage over the Hoysalas, and established themselves for a short period in parts of the north-west, with their seat of government at Beltūr or Bettūr, near Dāvangere. On the Hoysalas recovering power they made Bemmattanakallu, the present Chitaldroog, the seat of government for the province. In the fourteenth century both Seunas and Hoysalas fell victims to the Musalmān invasions from Delhi. But the Vijayanagar empire now arose, and the Chitaldroog state was founded, in subordination to it, in the fifteenth century. This continued an important power till, after more than one effort, it was finally subjugated in 1779 by Haidar Alī, who deported 20,000 of the Beda population to people the island of Seringapatam. There was also a state with head-quarters at Hatti (now Nāyakanhatti), which acquired Molakālmuru from Rāyadurga. But this was absorbed into the Chitaldroog territory. The other principal state was that of the Harati family round Dodderi in the east of the District. They were driven from there by the Bijāpur invasions of the seventeenth century, and established themselves at Nidugal, till subdued by Tipū Sultān in 1784. The District suffered severely from the Marāthā inroads of the eighteenth century, by which it was deprived of the great majority of its inhabitants, and entirely denuded of woods. The west and south again underwent much trouble in the rebellion of 1830.

History.

The primitive stone structures known as kistvaens are called in the Molakālmuru *tāluk*, where the Asoka edicts were found, *moryara mane*, 'houses of the Moryas' or Mauryas [3]. There are also groups of stone

[1] The existing caste of Nonabas represents its former subjects.

[2] These numerical designations, almost invariably attached to the names of ancient divisions in Mysore, apparently refer to their revenue capacity or to the number of their *nāds*.

[3] It appears they are also so called by the Badagas of the Nīlgiris, who are Kanarese immigrants from the north (*badaga*).

circles called *morya dinne*, 'mounds of the Moryas,' which seem to be the sites of Beda encampments. At the Ankli *math*, west of Chitaldroog, is a remarkable series of subterranean chambers, containing shrines, *lingams*, baths, and pedestals, the latter apparently for *yogāsana*. They are unused, and nothing is known of their history. An inscription at a cave close by is of the thirteenth century. At Anekonda near Dāvangere, and along the Tungabhadra, at Nandigudi, Vāsana, and Nanditāvare, are striking remains of temples, the latter of the Hoysala period. But the chief architectural monument is the Harihareswara temple at Harihar. It is of the Chālukyan style, and was built in 1224 under the Hoysalas. Though shorn of many of its ornamental features, it was fortunately spared by the Muhammadan invaders of the seventeenth century, who contented themselves with using the roof as a mosque, making a small Saracenic doorway into the dome over the image of the god to serve as the *mimbar* or pulpit. The inscriptions of the District have been translated and published.

Population.

The population at each Census in the last thirty years was: (1871) 435,553, (1881) 310,511, (1891) 413,984, and (1901) 498,795. The decrease in 1881 was due to the famine of 1876–8. By religion, in 1901 there were 464,092 Hindus, 23,950 Musalmāns, 443 Christians, 801 Jains, and 9,506 Animists. The density was 124 persons per square mile, that for the State being 185. The number of towns is 14, and of villages 1,484. The largest town is DAVANGERE (population, 10,402), while CHITALDROOG, the head-quarters, has only 5,792 inhabitants.

The following table gives the principal statistics of population in 1901:

Tāluk	Area in square miles	Number of Towns	Number of Villages	Population	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Chitaldroog	531	2	187	83,205	157	+ 25.0	4,904
Dāvangere	556	3	259	109,121	196	+ 15.4	5,521
Jagalūr	372	1	168	47,196	127	+ 23.5	1,797
Molakālmuru	290	3	94	37,744	130	+ 15.9	1,602
Challakere	788	2	192	74,035	94	+ 21.9	2,881
Hiriyūr	635	1	152	48,464	76	+ 22.1	2,694
Hosdurga	567	1	252	45,032	79	} + 21.1	} 3,505
Holalkere	405	1	180	44,848	110		
District total	4,144	14	1,484	489,645	118	+ 20.5	22,904

NOTE.—Hosdurga, a sub-*tāluk* of Holalkere in 1901, was reconstituted a separate *tāluk* in 1902–3, and the areas and population of the last three are figures subsequent to the change. At the same time, 97 square miles from the Chiknāyakanhalli *tāluk* of Tumkur District, and 25 square miles from the Kadūr *tāluk* of Kadūr District, were transferred to the Hosdurga *tāluk*.

The most numerous castes are Lingāyats, 96,000, and Bedas, 85,000. There are 54,000 Wokkaligas or cultivators; 47,000 Mādigas and 9,000 Holeyas, both outcaste tribes; 37,000 Gollas or cow-keepers; and 30,000 Kurubas or shepherds. Of Brāhmans there are 7,000. Of Musalmāns two-thirds are Shaikhs, 16,000. The nomad Lambānis number 7,000, and Korachas 2,000. By occupation 60 per cent. of the population are dependent on agriculture and pasture; 19 per cent. on the preparation and supply of material substances; and 8·9 per cent. on unskilled labour not agricultural.

Christians number only 443, the smallest number in any District in Mysore; and of these, 386 are natives. There is no mission station, but Wesleyan missionaries from Shimoga visit Dāvangere and other places.

Agriculture.

Black cotton soil prevails throughout the *tāluks* north and west of Chitaldroog town, interspersed with sandy and gravelly tracts. In the west a red and loamy soil occupies the valleys. In the south the soil contains much salt, and on that account is favourable to the growth of coco-nut palms, of which there are large plantations. The *tāluks* in the east have a light sandy soil abounding in springs. These *talpargis* or spring-heads may be tapped at short distances from each other. The water is either conducted by narrow channels to the fields, or a well is constructed, from which the water is raised by two or four bullocks. Except in the Chitaldroog *tāluk*, these wells are for the most part found east of a nearly central line drawn from north to south.

The following table gives the chief statistics of cultivation in 1903-4:—

Tāluk.	Area in square miles, shown in the revenue accounts.				
	Total.	Cultivated.	Irrigated	Forests.	Cultivable waste.
Chitaldroog	518	234	14	50	48
Dāvangere	547	417	8	17	28
Jagalūr	369	178	5	45	30
Molakālmuru	280	92	15	45	24
Challakere	783	210	24	...	184
Hiriyūr	627	229	13	84	67
Hosdurga	555	139	13	43	74
Holalkere	404	137	7	42	45
Total	4,083	1,636	99	326	500

Chitaldroog, Hiriyūr, Māyakonda, Dāvangere, and Bilchod produce cotton, which is also grown, though in smaller quantities, in Anaji, Kankuppa, and Molakālmuru. Flax for the manufacture of linseed-oil is raised in Dāvangere, Kankuppa, and Bilchod. All the northern *tāluks* produce wheat, *jola*, *navane*, sugar-cane, and *chenna*. Rice is less

abundant. Cumin seed is grown in the north-east. In the south, about Mattod, are extensive groves of coco-nut palms, growing in the 'dry' lands without irrigation. The cultivation in the south-west consists of the ordinary 'dry crops' raised on red soil. All along the east, wells are largely used in raising crops by irrigation, including *rāgi*, which on the Bellary border is cultivated in no other way. The area occupied by the various crops in 1903–4 was: *rāgi*, 261 square miles; rice, 63; other food-grains, 866; gram, 223; oilseeds, 141; cotton, 89; garden produce, 15; sugar-cane, 5.

During the twelve years ending 1904 there was advanced a sum of 1·8 lakhs for irrigation wells and Rs. 40,000 for field embankments. For land improvements the advances amounted to Rs. 33,000.

There were 6 square miles irrigated from channels, 89 from tanks and wells, and 7 from other sources. The number of tanks is 703, of which 133 are 'major' tanks.

The State forests cover an area of 93 square miles, 'reserved' lands 111, and plantations 121. The forest receipts in 1903–4 amounted to Rs. 42,000. One of the most important timbers is the *kammar*. There is no sandal-wood.

Clay ironstone constitutes some ranges of hills near Chitaldroog town. Drawing slate is also found in the neighbourhood. Schorl in quartz is met with near Harihar. Potstone and actinolite occur frequently in pockets near Mattod. The latter has a considerable admixture of iron, and when decomposed becomes quite red. Asbestoid is found in the potstone near Talya, and ligniform asbestos among the Māyakonda hills. Lamellar actinolite occurs at Harihar. A mineral resembling brown-spar is obtained near Talya and Anaji. Near the former place, and elsewhere among the Chitaldroog hills, is found iron-glance. Carbonate of soda is abundant. Land has been taken up for exploration for gold to the north of Chitaldroog, and gold-mining has been commenced at Borimaradi in the Hiriyūr *tāluk*, but so far with uncertain results.

Trade and communications.

The most general manufactures are those of blankets and cotton cloth. The finest blankets are made in the Dāvangere and Jagalūr *tāluks*, both white and black, as well as checked. Some have been turned out, valued at Rs. 200 to Rs. 300, of so fine a texture that they could be rolled up into a hollow bamboo, and yet were considered impervious to water. The ordinary kinds are made more or less everywhere. Cotton fabrics are produced in the greatest quantity near Harihar, in the Chitaldroog *tāluk*, and in the north of Molakālmuru. Coarse cloths are to some extent made in all *tāluks*, and in Dāvangere and Hosdurga cotton thread is largely spun by the women. In the latter, red and coloured handkerchiefs are made. A large cotton-ginning factory has been established at Dāvangere by a European firm. Silk manufactures are confined to the Molakālmuru

and Harihar *tāluks*. In the former are produced cloths for men and women, with scarves and turbans, and women's *sāris* of silk and cotton interwoven. In Harihar white and black check cloths are woven of raw silk from Bangalore. Iron and some steel are manufactured in the Hiriyūr, Hosdurga, and Chitaldroog *tāluks*. Brass vessels are prepared in the north of Molakālmuru. Glass bangles are made at Mattod, and leathern articles, such as slippers and buckets, in Molakālmuru. Blue and red dyes are manufactured at Harihar. There are reported to be 8 looms for silk, 7,677 for cotton, 1,354 for wool, 31 iron-works, 95 oil-mills, and 80 jaggery and sugar-mills.

The chief mart is Dāvangere. But there is also considerable traffic between the Nagar Malnād and the eastern Districts through Holalkere and Huliyār, and with Bellary and Districts to the north through Tallak and other places in the Challakere *tāluk*. Agents of Bombay firms are stationed at Dāvangere for the purpose of buying up oilseeds, &c.

The Southern Mahratta Railway from Bangalore to Poona runs through the west of the District for 59 miles. The length of Provincial roads is 219 miles, and of District fund roads 248 miles.

Famine.

The scanty rainfall especially exposes this District to threatenings of famine. In 1884–5, in 1891–2, and in 1895–6 there were symptoms of distress. In 1896–7 a remission was granted of half the assessment on waste 'wet' lands, as a measure of relief. The Māri Kanave reservoir and channels are designed as a protection against drought.

Administration.

The District is divided into eight *tāluks*—CHALLAKERE, CHITALDROOG, DĀVANGERE, HIRIYŪR, HOLALKERE, HOSDURGA, JAGALŪR, and MOLAKĀLMURU. The following subdivisions were formed in 1903 and placed under Assistant Commissioners: Chitaldroog; Dāvangere, Holalkere, Hosdurga, and Jagalūr, with head-quarters at Dāvangere; Challakere, Molakālmuru, and Hiriyūr, with head-quarters at Chitaldroog.

The District and Subordinate Judge's courts at Shimoga have jurisdiction in this District, the former over the whole, and the latter over a part. At Chitaldroog there is a Subordinate Judge's court for the rest of the District. Near the frontier cases of serious crime are fairly common.

The land revenue and total revenue are shown below, in thousands of rupees:—

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue	5,97	6,11	7,14	7,48
Total revenue	7,36	9,07	11,78	11,54

The revenue survey and settlement were introduced into the west

between 1865 and 1868, and into the east in 1869 and 1872. The incidence of land revenue per acre of cultivated area in 1903–4 was R. 0–10–8. The average assessment per acre on 'dry' land is R. 0–5–10 (maximum scale Rs. 2, minimum scale R. 0–1–0); on 'wet' land, Rs. 2–13–5 (maximum scale Rs. 7, minimum scale R. 0–3–0); and on garden land, Rs. 3–15–7 (maximum scale Rs 12, minimum scale R. 0–12–0).

In 1903–4 there were nine municipalities—Chitaldroog, Dāvangere, Harihar, Hosdurga, Holalkere, Challakere, Hiriyūr, Jagalūr, and Molakālmuru—with a total income of Rs. 41,000 and an expenditure of Rs. 55,000. There were also six Unions—Bāgūr, Malebennūr, Turuvanūr, Nāyakanhatti, Rāmpur, and Devasamudra with a total income of Rs. 6,000 and a total expenditure of Rs. 14,000. The District and *tāluk* boards had an income of Rs. 51,000, chiefly derived from a share of the Local fund cess, and spent Rs. 48,000, including Rs. 34,000 on roads and buildings.

The strength of the police force in 1903–4 was one superior officer, 88 subordinate officers, and 573 constables. There are 9 lock-ups, containing a daily average of 21 prisoners.

The percentage of literate persons in 1901 was 4·6 (8·6 males and 0·4 females). The number of schools rose from 435 with 9,058 pupils in 1890–1 to 437 with 12,417 pupils in 1900–1. In 1903–4 there were 427 schools (215 public and 212 private) with 10,719 pupils, of whom 1,071 were girls.

Besides the civil hospital at Chitaldroog there are 10 dispensaries, at which 80,225 cases were treated in 1904, of whom 221 were in-patients, the number of beds available being 15 for men and 15 for women. The total expenditure was Rs. 21,000.

The number of persons vaccinated in 1904 was 5,347, or 11 per 1,000 of the population.

Chitaldroog Tāluk.—Central *tāluk* of Chitaldroog District, Mysore, lying between 14° 3′ and 14° 28′ N. and 76° 6′ and 76° 35′ E., with an area of 531 square miles The population in 1901 was 83,205, compared with 66,546 in 1891. There are two towns, CHITALDROOG (population, 5,792), the head-quarters, and TURUVANŪR (5,035); and 187 villages. The land revenue demand in 1903–4 was Rs. 1,22,000 A range of rocky hills running north and south divides the *tāluk* into two almost equal portions. Towards the north the range is narrow and the hills bare and insignificant, but south of Chitaldroog it spreads out into greater width, and the hills are loftier and peculiarly striking in appearance. The country east and west of the range is comparatively flat and free from jungle. To the east black soil preponderates, while to the west the country is for the most part composed of red soil. The west is better supplied with reservoirs than the east and contains the

large Bhīmasamudra tank. 'Dry crops' are cultivated principally on the east side, *rāgi* on the west side being frequently sown in garden and rice lands. The kind of rice cultivated is *sāl bhatta*, which requires little water and thrives upon the rainfall alone, though generally planted near a tank or nullah in case of need.

Chitaldroog Town.—Head-quarters of the District and *tāluk* of the same name in Mysore, situated in 14° 13′ N. and 76° 24′ E., 24 miles north-east of Holalkere railway station. Population (1901), 5,792. Traces of an ancient city, named, it is said, Chandrāvali, are found immediately to the west. The Buddhist lead coins discovered there some time ago indicate that it belonged to the Andhra or Sātavāhana kings of the second century A.D. The modern town was owned in turn by the Rāshtrakūtas, Chālukyas, Hoysalas, Seunas, and Vijayanagar, and was named Bemmattanakallu or Bemmattanūru. The Chitaldroog chiefs, of the Beda or Boya caste, after settling in various parts of the District, established themselves here in the sixteenth century, and on the fall of Vijayanagar assumed independence. Before this they had fortified the hill; and it received the name of Chitrakal-durga, perhaps for Chatrikal, 'umbrella rock,' there being a striking peak of this form to the south-west, considered sacred by both Hindus and Muhammadans. Another peak to the south has a temple of the goddess Obala at the top, a special object of worship to the Bedas. The principal temple in the town is that of Uchchangiamma, a building of two storeys. The present extensive fortifications and batteries were erected at the end of the eighteenth century under Haidar Alī and Tipū Sultān, by whom were also constructed the numerous granaries and pits for storing oil and *ghī*. The palace in the inner fort, erected by Tipū, with a fine fruit garden, is now occupied as a *kacheri*. Beyond this was the arsenal, where a large mill, probably used for the manufacture of gunpowder, has lately been discovered. For some time after 1799 Chitaldroog was garrisoned by British troops, but was given up on account of its unhealthiness. To the north-west, 3 miles distant, is the Murgi *math*, the residence of the chief *gurū* of the Sivabhaktas or Lingāyats. Among a wildly rugged and picturesque group of hills to the west is the Ankli *math*, of recent date. A curious series of subterranean chambers, of various sizes at different levels, exists here. They contain shrines, *lingams*, baths, and pedestals, the latter apparently meant for *yogāsana*. They may be 300 to 500 years old in their present form, but the caverns must have existed long before. At the Pancha Linga cave, near the entrance, is a Hoysala inscription of 1286. About 3 miles south of Chitaldroog is the Jogimaradi, a hill 3,803 feet high, which has been used as a hot-season resort. The municipality dates from 1870. The receipts and expenditure during the ten years ending 1901 averaged Rs. 13,200 and Rs. 13,100. In 1903-4 they were Rs. 11,000.

Chitaldroog Hills.—A belt running from south to north through the middle of Chitaldroog District, Mysore State, lying between 13° 36′ and 14° 42′ N. and 76° 24′ and 76° 36′ E., a continuation of the Chiknāyakanhalli auriferous band. The Jogimaradi hill, south of Chitaldroog, is a hot-season retreat, 3,803 feet high, and Chitaldroog itself is 3,229 feet above the sea. The latter is extensively fortified, the modern works dating from the time of Tipū Sultān, about 1782. The hills are in intermittent parallel chains, mostly bare and stony; but some of the lower ridges are covered with fine grass and produce trees of middling size.

Chitarkot.—Hill partly in Bāndā District, United Provinces. *See* CHITRAKŪT.

Chit Firozpur (also called Barāgāon).—Town in Balliā District, United Provinces, situated in 25° 45′ N. and 84° E., on the right bank of the Chhotī Sarjū. Population (1901), 9,505. This is the centre of the Kausik Rājputs, but is merely a collection of mud houses, without regular streets. There are two large tanks, one of which is of masonry throughout and is the finest in the District. The town is administered under Act XX of 1856, with an income of about Rs. 1,400. There is a school with 55 pupils.

Chitor.—Head-quarters of a *zila* or district of the same name in the State of Udaipur, Rājputāna, situated in 24° 53′ N. and 74° 39′ E., about 2 miles east of the Chitor railway station, which is a junction for the Udaipur-Chitor and Rājputāna-Mālwā Railways. It lies at the foot of the western slope of the hill on which stands the celebrated fort of Chitor. About half a mile to the west is the Gambhīr river, a tributary of the Berach, which is spanned by a solid bridge of grey limestone with ten arches, said to have been built in the fourteenth century. Close to the railway station are the Government opium scales, which were moved here from Udaipur in November, 1883. All Mewār opium exported to Bombay has to pass these scales; the number of chests so exported has varied from 8,288 in 1887–8 to 1,907 in 1902–3, but the annual average in recent years is about 4,400 chests. In 1901 the town and fort contained 7,593 inhabitants, of whom 68 per cent. were Hindus and 18 per cent. Musalmāns. Chitor possesses an Anglo-vernacular school attended by 90 boys, and a hospital with accommodation for 12 in-patients.

The famous fort stands on a long narrow hill, lying almost exactly north and south and about 500 feet above the surrounding plain. Its length is about 3¼ miles and its greatest breadth half a mile, and it covers an area of about 690 acres. It is difficult to ascertain the correct date when the fort was built. Tradition ascribes it to Bhīm, the second of the Pāndavas. Its old name was Chitrakot; and it was so called after Chitrang, the chief of the Mori Rājputs, who ruled here about

the seventh century, and whose tank and ruined palace are still to be seen in the southern portion of the hill. The fort was taken from the Moris by Bāpā Rāwal in 734, and remained the capital of the Mewār State till 1567, when the seat of government was moved to Udaipur city. The place has been four times taken and sacked by Musalmān kings and emperors: in 1303 by Alā-ud-dīn Khiljī, who handed it over to his son Khizr Khān and called it Khizrābād after him; about the middle of the fourteenth century by Muhammad bin Tughlak[1]; in 1534 by Bahādur Shāh of Gujarāt; and in 1567 by Akbar. The fort has three main gates: namely, the Rām Pol on the west, the Sūraj Pol on the east, and the Lākhotā Bārī on the north, the principal approach from the town being through the first of these gates. One of the most ancient buildings in the fort is the Kīrtti Stambh or 'tower of fame,' erected by a Bagherwāl Mahājan named Jījā in the twelfth or thirteenth century and dedicated to Adināth, the first of the Jain Tīrthankars. It has just been repaired under the general direction of the Government of India. The most prominent monument on the hill is the Jai Stambh or 'pillar of victory,' constructed between 1442 and 1449 by Rānā Kūmbha to commemorate his success over the combined armies of the Sultāns of Mālwā and Gujarāt. This tower is more than 120 feet in height and about 30 feet in diameter at the base; a staircase passes up through its nine storeys, winding alternately through a central well and a gallery formed round it. The whole, from basement to summit, is covered with the most elaborate ornament, either in figures belonging to the Hindu pantheon, each carefully named, or in architectural scrolls and foliage, all in perfect subordination to the general design. Tod thought that the only thing in India to compare with it was the Kutb Minār at Delhi, which, though much higher, was of very inferior character, while Fergusson considered it to be in infinitely better taste as an architectural object than the Pillar of Trajan at Rome, though possibly inferior in sculpture. Among other buildings may be mentioned the graceful and richly carved little temple called Singār Chaorī, constructed in 1448; and that dedicated to Kālkā Devī, which is the oldest building standing in the fort and was originally a temple to the Sun. A few Buddhist votive *stūpas* have been found on the hill, and are now regarded by the people as *lingams*. About 7 miles north of Chitor, on the right bank of the Berach river, is the village of Nagari, one of the most ancient places in Rājputāna, belonging to the Rao of Bedla. Several coins and a fragmentary inscription of a period anterior to the Christian era have been discovered here. There are also a couple of Buddhist *stūpas*, and an enclosure of huge cut blocks of stone which was originally a Buddhist building of some

[1] It is, however, doubtful if Muhammad bin Tughlak ever besieged or took the fort; *see* Udaipur State.

kind, but was used by Akbar for his elephants and is consequently called Hāthi-kā-bārā. To the north of Nagari is a hollow tower or pyramidal column called Akbār's lamp, which was built by him when besieging Chitor.

[J. Tod, *Annals and Antiquities of Rajasthan*, vol. i (1829); J. Fergusson, *Picturesque Illustrations of Ancient Architecture* (1848); A. Cunningham, *Archaeological Survey of Northern India*, vol. xxiii, pp. 101–24 (1887); and J. P. Stratton, *Chitor and the Mewār Family* (Allahābād, 1896).]

Chitpur.—Suburbs of Calcutta. *See* COSSIPORE-CHITPUR.

Chitrādi.—Village in the Chamba State, Punjab, situated in 32° 27′ N. and 76° 25′ E., in a fine open plain on the south bank of the Rāvi. It contains a Devī temple, coeval with that of BRĀHMAUR, with an inscription of the seventh century.

[A. Cunningham, *Archaeological Survey Reports*, vol. xiv, pp. 112–3, and vol. xxi, pp. 7–13; *Indian Antiquary*, vol. xvii, pp. 7–13.]

Chitrakūt.—Hill and place of pilgrimage in the Karwī *tahsīl* of Bāndā District, United Provinces, situated in 25° 13′ N. and 80° 46′ E., 3½ miles from the Chitrakūt station on the Great Indian Peninsula Railway. The hill lies partly in the Karwī *tahsīl* and partly in the Chaube *jāgīr* of Kāmtā Rajolā. The Paisunī river flows nearly a mile from its base, which has a circumference of three or four miles. A terrace, constructed by the Rānī of Chhatarsāl about 1725, and repaired as a famine work in 1896–7, runs round the hill-side. In former times the hill was more frequented as a place of pilgrimage than any other in Bundelkhand or Baghelkhand. It is said to have attained its great sanctity in the Tretāyuga, or the third epoch of the Hindu cosmogony, when it was visited by Rāma and Sītā during their wanderings in the jungles. More than thirty shrines, dedicated to various deities, crown the surrounding hills, or fringe the banks of the Paisunī. The small town of Sītāpur, on the banks of the river, is largely inhabited by attendant priests. The temple attendants enjoy the revenues of forty-two *mahāls* within British territory, besides several others in the adjoining Native States. Two large fairs take place annually, on the occasion of the Rām-naumī and Dewāli festivals, which formerly attracted 30,000 and 45,000 persons respectively. The attendance has now shrunk to a few thousands, as Rājās do not attend the festivals, and the Marāthā family of Karwī has become impoverished. Since 1897 plague regulations have still further reduced the number of pilgrims.

Chitrāl State.—State in the Dīr, Swāt, and Chitrāl Agency of the North-West Frontier Province, lying between 35° 15′ and 37° 8′ N. and 71° 22′ and 74° 6′ E., with an area of about 4,500 square miles. The State derives its name from the village of Chitrāl, situated in

35° 51′ N. and 71° 50′ E. It comprises the whole of Kashkār Bāla or Upper Kashkār, i.e. the Tirich valley, which runs northward from Tirich Mīr for 60 miles until it joins the Tūrikho valley; thence the combined streams run south for 40 miles through the Mūlkho valley and join the Kho valley below Mastūj. The Tūrikho valley lies north-east and south-west parallel with the Yār Khūn, and has a length of 60 miles.

Physical aspects.

The boundaries of Chitrāl are: on the north, the Hindu Kush range; on the west, Badakhshān and Kāfiristān; on the south, Dīr; and on the east, the Gilgit Agency, Mastūj, and Yāsīn.

History.

It is recorded in a Sanskrit inscription carved on a rock near Barenis in Mastūj that about the year A.D. 900 the inhabitants of the surrounding country were Buddhists, and under the sway of Jaipāl, king of Kābul. A local legend tells of attacks on Chitrāl by Chingiz Khān and his Tartars, but the history of the country is practically lost before the sixteenth century. At that time a prince, whose name or title was Rais, was on the throne; and his first subject was one Sangīn Alī, a foreigner of unknown origin, who however is said to have come from Khorāsān, by which is meant the hill country between Ghazni and Kandahār. Sangīn Alī died in 1570, leaving four sons, two of whom made themselves all-powerful in the country, ousting the Rais dynasty. From the second son the present Mehtar's house is descended, while the chief clans of the Adamzādas take their names from Sangīn Alī's grandsons. The ruling dynasty has thus maintained itself on the throne for more than 300 years, during the greater part of which Chitrāl, with or without Mastūj, has been constantly at war with her neighbours—Gilgit, Yāsīn, the Sikh governor of Kashmīr, the Chilāsis, and the Pathān tribes to the south. In 1854 the Mahārājā of Kashmīr made alliance with Shāh Afzal, Mehtar of Chitrāl, against Gauhar Aman, the ruler of Yāsīn and Mastuj, who was invading Gilgit, a State tributary to Kashmīr. A confused period of war and intrigue followed, in which the chief event was the unsuccessful invasion of Chitrāl in 1868 by the ruler of Badakhshān, acting under pressure from Kābul. From this Amān-ul-mulk, the youngest son of Shāh Afzal, finally emerged about 1880 as master of Chitrāl, Mastūj, Yāsīn, and Ghizr. The Kashmīr Darbār, which with the approval of the Government of India had been in alliance with him since 1878, in opposition to the possibility of Afghān aggression, now formally recognized him and doubled the subsidy granted to him.

In 1885–6 Chitrāl was visited by the Lockhart mission; and in 1889, on the establishment of a Political Agency in Gilgit, Amān-ul-mulk received a subsidy from the British Government of Rs. 6,000 per annum. Some rifles were also given to him. In 1891 this subsidy was increased to Rs. 12,000, on condition that he accepted the advice of Government

in all matters connected with foreign policy and the defence of the frontier.

In 1892 Amān-ul-mulk died suddenly. His second son, Afzal-ul-mulk, who happened to be on the spot, seized the throne. The eldest son, Nizām-ul-mulk, governor of Yāsīn, fled to Gilgit. Before Afzal-ul-mulk had fairly embarked on the necessary extirpation of his other half-brothers, Umrā Khān of Jandol, who was at this time master of Dīr, invaded Chitrāl territory, and seized the fort and district of Narsat. Afzal-ul-mulk was about to march against him when his uncle Sher Afzal, who had been a refugee in Afghānistān, returned suddenly with a small following. Chitrāl fort was opened to him, and in the confusion that followed Afzal-ul-mulk was murdered. Sher Afzal proclaimed himself Mehtar. Nizām-ul-mulk was then allowed to re-enter Chitrāl from Gilgit. Sher Afzal, believing him to have British support, fled before him, and Nizām-ul-mulk in turn ascended the throne. He was recognized by Government, and a Political Agency was established in Chitrāl.

In January, 1895, Nizām-ul-mulk was murdered at the instigation of his half-brother Amīr-ul-mulk, acting as the tool of Umrā Khān, who was still in occupation of Narsat and had espoused the cause of Sher Afzal. Amīr-ul-mulk seized the fort. Umrā Khān crossed the Lawarai pass with an army, giving out that he was conducting a religious war against the infidels, and asking Amīr-ul-mulk to join him. Amīr-ul-mulk was unable or unwilling to comply, and Umrā Khān laid siege to Drosh, which he took after about a month's investment. Meanwhile, the Political Agent at Gilgit had been sent to Chitrāl to report on the situation. With his escort, which by reinforcements had been brought up to a strength of over 400 men, of whom 300 belonged to the Kashmīr Imperial Service troops, he occupied the fort. All seemed well when suddenly Sher Afzal reappeared on the scene. He was supported by Umrā Khān, and was shortly joined by the bulk of the ruling class, the Adamzādas, with their adherents. Amīr-ul-mulk made overtures to them and was consequently placed under restraint in the fort; and Shujā ul-mulk, a lad of fourteen, his brother, was provisionally recognized as Mehtar. The garrison of the fort made an ineffective sortie, and were then besieged from March 3 till April 19. During the continuance of the siege two notable successes were gained elsewhere by the enemy. The first was the treacherous capture at Būni of two British officers, the destruction of their following, and the seizure of 40,000 rounds of ammunition. The two officers were kept as prisoners by Umrā Khān at Munda for nearly a month, and were then released on the approach of the relief force. The other success was the practical annihilation near Reshūng of a detachment of 100 men of the 14th Sikhs under Captain Ross. At Chitrāl, however, the besieged, though in considerable straits, held out gallantly until the approach of

a small force from Gilgit caused their assailants to withdraw. A week later (April 26) the advance guard of the main relief force, which had been dispatched via the Malakand and Dīr, entered Chitrāl territory over the Lawarai pass. Sher Afzal was taken prisoner and Umrā Khān fled to Afghān territory. Sher Afzal, Amīr-ul-mulk, and their leading followers were deported to India, and the selection of Shujā-ul-mulk as Mehtar was confirmed. Since then Chitrāl has enjoyed an unwonted peace. The British garrison, most of which is stationed at Drosh, has been reduced to a single regiment of native infantry, relieved annually by the Swāt and Dīr route. Hospitals have been opened at Chitrāl, Mastūj, and Drosh. Cultivation has been extended and the Mehtar's revenue continues to increase, while at the same time his mental horizon has been much enlarged by his visits to Calcutta in 1900, to the Delhi Darbār in 1903, and to Peshāwar in 1904.

Mention should here be made of the Chitrāl levies, 200 strong, who were raised in 1899 for the defence of Lower Chitrāl. In 1903 the Chitrāl Scouts were raised, with the Mehtar as honorary commandant. Their object is to provide a wholly irregular force of cragsmen for the defence of the country in case of invasion. The corps has a total strength of 1,200 men, but all of these are never embodied at one time.

Population.

The present inhabitants of Chitrāl are divided into three strata: Adamzādas, Arbābzādas, and *fakīr miskīn* (literally, 'poor beggars'). The last form the majority of the population and till the soil, paying the usual tithe in revenue. The other classes are exempt from taxation. The theory that these three classes represent successive waves of invaders is probably correct, but the origin of all three is unknown. The Adamzādas at least are certainly of Aryan descent; and the language of the country, Khowār, is classed with Shīnā, or the language of Gilgit, as Indo-Aryan but non-Sanskritic. The total population numbers about 50,000.

The religion of the people is now Islām, but their conversion is recent, dating from early in the fourteenth to late in the sixteenth century, and many primitive beliefs and customs survive. Most of the people of Lut-kho belong to the Maulai sect, whose head is the Agha Khān, the chief of the Khoja community at Bombay. His agents yearly convey to him the offerings of his adherents. The local religious leaders are the *pīrs*, to each of whom is assigned a tract of country, and under whom are *khalīfas* or collectors of offerings. One tenet of the sect is said to be a belief in metempsychosis. Fanaticism is markedly absent throughout the country.

Agriculture.

All three valleys—the Tūrikho, Mūlkho, and Tirich—are fertile in the extreme, and are cultivated continuously. The soil is mostly clay and gravel, and the hill-sides are generally bare. The chief crops are wheat, barley, maize, and rice.

Iron, copper, and orpiment of superior quality are found in Kashkār, and are mined, a few villages being almost wholly employed in the industry. Inferior cotton carpets are made for local use, and the Chitrāl daggers and sword-hilts are in great demand in the neighbouring valleys.

Administration.

The country is divided into eight districts, each under an *atālik*, who collects its revenue and leads its men in war. Below the *atālik* is the *charwelo*, who has charge of a group of villages, generally lying in one valley. Each village is under a *baramūsh* or headman, who maintains roads, forts, and bridges, assisted by a *charbū* as deputy. The internal administration of the country is conducted by the Mehtar, with as little interference as possible. The foreign policy of the State is regulated by the Political Agent under the orders of the British Government.

The precepts of the Muhammadan law are nominally enforced and the Mullās have considerable influence, often for good. Justice, however, is virtually administered at the ruler's will. Petty cases are decided by the *atālik*.

The regular land revenue of the country is realized solely from the *fakīr miskīn* class, who pay a tithe of their agricultural produce and other dues in kind. Shepherds also pay in kind. In practice these dues are not fixed, and as much as possible is wrung from the people. Fixed dues are also levied on the through trade with Badakhshān. The practice of selling Kho women, proverbial for their beauty, in Peshāwar, Kābul, and Badakhshān, was formerly recognized as a legitimate source of revenue, and made Chitrāl a great resort of slave-dealers. Of recent years, however, the market for slaves has become circumscribed, and the system is now limited to the sale of girl children to supply the harems of Kābul, Badakhshān, and a few other territories.

Chitrāl Town (*Chitrār* or Kashkār).—Town, or rather group of villages, forming the capital of the State of Chitrāl, North-West Frontier Province, situated in 35° 51′ N. and 71° 50′ E. Population, about 2,380. It lies on the Chitrāl river, and contains a small bazar, recently enlarged, in which petty traders from Bājaur and Badakhshān drive a fairly brisk trade. The Assistant Political Agent in Chitrāl resides here.

Chitrāvās.—Petty State in KĀTHIĀWĀR, Bombay.

Chittagong Division. Division of Eastern Bengal and Assam, lying between 20° 35′ and 24° 16′ N. and 90° 34′ and 92° 42′ E., in the extreme south of the Province. It is bounded on the west by the Bay of Bengal; on the north-west by the Dacca Division; on the north-east by Sylhet and Hill Tippera; on the east by the Lushai Hills and North Arakan; and on the south by Arakan. It comprises four Districts, as shown in the following table:—

District.	Area in square miles.	Population, 1901.	Demand for land revenue and cesses, 1903-4, in thousands of rupees.
Tippera	2,499	2,117,991	13,45
Noākhāli	1,644	1,141,728	8,32
Chittagong	2,492	1,353,250	13,22
Chittagong Hill Tracts . .	5,138	124,762	*
Total	11,773	4,737,731	34,99

* In the Chittagong Hill Tracts the so-called land revenue consists of the rents assessed on lands cultivated with the plough, and no cesses are levied.

The head-quarters of the Division are at CHITTAGONG TOWN. The recorded population was 3,441,430 in 1872, 3,569,071 in 1881, 4,190,081 in 1891, and 4,737,731 in 1901. The most marked characteristic is the large number of Muhammadans, who in 1901 constituted 3,333,000, or 70 per cent. of the whole population; Hindus numbered 1,251,000, or 26 per cent., and Buddhists 150,000, or 3 per cent., while there were 2,443 Christians and 800 of other religions. The density of population is 402 persons per square mile, or 695, if the sparsely inhabited Hill Tracts are excluded. The Division contains 6 towns and 9,740 villages. The only town with a population exceeding 20,000 is Chittagong (22,140), but COMILLA (19,169) and BRĀHMANBĀRIA (19,915) very nearly approach that figure.

The position of Chittagong as the base for operations against the Lushais before they were turned into peaceable British subjects formerly gave the Division a much greater political importance than it now possesses. As chairman of the Commissioners of the Chittagong port, the Commissioner has to deal with a number of commercial questions; and in the Chittagong Hill Tracts he exercises direct administrative control, and has the powers of a Sessions Judge and of an Inspector-General of police. The Government estates in this Division are more important than in any other, especially in Chittagong District, the aggregate rental being 8·43 lakhs, or nearly a third of the total land revenue. No less than 2,085 square miles are 'reserved' as forest. Chittagong is the chief port in Eastern Bengal, and CHĀNDPUR, on the Meghnā, is a rapidly growing jute centre which taps one of the most important jute-growing tracts in the world, while SITĀKUND is a much-frequented place of pilgrimage. The State of HILL TIPPERA is under the political supervision of the Commissioner.

Chittagong District (*Chattagrām*).—District in the Division of the same name, Eastern Bengal and Assam, lying between 20° 35′ and 22° 59′ N. and 91° 30′ and 92° 23′ E., with an area of 2,492 square miles. It lies on the east of the Bay of Bengal, and is separated on the south from the Akyab District of Burma by the Naaf estuary; on

the north the Fenny river divides it from Noākhāli and Tippera Districts; and on the east lie the Chittagong Hill Tracts. In shape it resembles an acute-angled triangle, 166 miles in length, its base resting on the river Fenny and its apex terminating in the promontory of Teknaaf; its breadth along the northern boundary is 26 miles, while along the southern it is only 4 miles.

Physical aspects.

The prominent characteristic of an extensive tract of country lying to the east of the Bay of Bengal is the succession of low ranges of hills, which run in a south-easterly direction parallel to each other and to the coast-line. Chittagong District comprises a section of the three most westerly of these ranges, and of the four valleys intersected by them. The first of the ranges rises almost from the sea at the northern extremity of Maiskhāl island, of which it forms the backbone. It reappears at Cox's Bāzār on the east of the Maiskhāl channel in precipitous cliffs along the whole length of the coast, and terminates in the promontory of Teknaaf. The central range forms the SĪTĀKUND hills in the north of the District and, proceeding southwards, is named successively the Diyāng, Bānskhāli, and Garjania hills. But little of the eastern range is in Chittagong District, which it enters a few miles north of the Karnaphuli river, disappearing again into the Hill Tracts after forming the Patiā hills between the Karnaphuli and Sangu rivers. The low hills, clothed with luxuriant vegetation, and the winding rivers, meandering through verdant plains interspersed with groves of bamboos and betel-nut palms, combine to form a very pleasing panorama.

The rivers traverse the District in a south-westerly direction at right angles to the ranges of hills, the watershed lying in the higher hills of the more easterly ranges in the Hill Tracts. The most important rivers are the FENNY, which marks the northern boundary, the KARNAPHULI, near the mouth of which lies the town of Chittagong, the SANGU, and the MĀTĀMUHARI. The District is thus divided into valleys, running from north to south, which are bounded on the east and west by hills and on the north and south by rivers, each valley being drained by affluents of the said rivers. The tributaries of the Karnaphuli are the Ichāmatī, Sylok, Haldā, and Boālkhāli, while the Sangu receives the Dolu, Chāndkhāli, and Kumirā.

The hills are formed of sandstones and clays of the Upper Tertiary period, and the valleys have been filled by alluvial deposits of sand and clay washed down from the hill-sides or dropped by the rivers when in flood.

Along the coast, and particularly on the low islands that fringe it, is found a scanty vegetation of *Ischaemum* and various other grasses and littoral or swamp-forest species. The lower hills that separate the river valleys are mainly covered with a shrubby jungle; the higher hills are

clothed with a dense jungle largely composed of gigantic trees, among which the most conspicuous are various *gurjans* (*Dipterocarpus turbinatus*), but with which are associated many *Laurineae*, *Leguminosae*, *Rubiaceae*, *Euphorbiaceae*, oaks and chestnuts, *Ternstroemiaceae*, *Meliaceae*, and *Urticaceae*. Palms are plentiful, and *Cycas* is abundant. *Casuarina equisetifolia* finds its northern natural limit in the extreme south of the District.

The forest-clad hills swarm with game. Wild elephants ravage the eastern valleys, and bison are found in the northern hills. Tigers are frequently shot, and leopards, deer, and wild cats abound.

Owing to its position on the coast-line of the north-east angle of the Bay, towards which the moist winds of the south-west monsoon converge, the District is remarkable for its uniform temperature, high humidity, and heavy rainfall from May to October. Owing to the differences of elevation and the increasing height of the hills towards the east, the rainfall varies largely from place to place, and while at Cox's Bāzār it is 140 inches, at Chittagong it is only 105. For the whole District, the average fall is 111 inches, of which 11·5 inches fall in May, 22·5 in June, 28 in July, 21·4 in August, 11·6 in September, and 6·7 in October.

The District is especially liable to cyclones, and five very destructive storms have visited it during the last 110 years. On June 3, 1795, a severe gale blew from seven o'clock in the evening till past midnight. Heavy rain followed, the Collector's *kacheri* was totally unroofed, and only five brick-built houses survived in Chittagong town. Two years later a furious hurricane passed over the District. Two vessels lying at anchor in the port were sunk, and almost every native hut was levelled to the ground; several lives were lost. In October, 1872, a cyclone passed over the Cox's Bāzār subdivision, inflicting considerable damage; many lives were lost and numbers of cattle destroyed. The Backergunge cyclone and storm-wave of October 31, 1876, swept the seaboard with still more disastrous results. The inundation extended from 3 to 6 miles inland, and the damage was especially widespread in the neighbourhood of estuaries and the mouths of rivers. About 12,000 persons were drowned on this occasion, and 15,000 perished in the cholera epidemic that ensued. The cyclone of October 24, 1897, will long be remembered as the most disastrous on record. The hurricane reached its maximum intensity about midnight, when a series of storm-waves swept over the island of Kutubdiā and the villages on the mainland near the coast, drowning thousands of men and cattle, sweeping away homesteads, and destroying the standing crops. The loss of life by drowning was estimated at 14,000 and, owing to the pollution of the water-supply, a severe epidemic of cholera broke out, which caused a further mortality of 18,000. The dikes along the seaboard were

washed away, and immense injury was done to buildings in Chittagong town and throughout the District.

History.

Chittagong originally formed part of the extensive Hindu kingdom of Tippera; but it was conquered by the Buddhist king of Arakan in the ninth century, and from that date onwards the Arakanese appear to have generally succeeded in retaining possession of the District. In the thirteenth century Chittagong was temporarily annexed to the Mughal empire, but the king of Tippera defeated the Muhammadans in 1512 and reconquered the country. Subsequently it again fell into the hands of the Mughals, and in 1538 a Portuguese mission from Goa to the governor of Bengal landed here, the latter, suspecting the intentions of the envoys, imprisoned them, and the Portuguese in revenge burnt the town. During the struggle for supremacy between the Mughals and Afghāns, between 1560 and 1570, Chittagong was reconquered by the king of Arakan and annexed to his kingdom as a tributary province; this fact, however, was ignored by the Mughals, and the District was assessed in 1582 by Todar Mal as an integral part of the empire.

In order to maintain their hold on the District the Arakanese, or Maghs as they are called in Bengal, imported a force of Portuguese outlaws, and made over to them the port of Chittagong as a pirate harbour. These renegades, who are generally known as Firinghīs, soon began to give trouble, and in 1605 they threw off their allegiance. Being driven out of Chittagong, they took refuge in the island of Sandwīp, from which coign of vantage they vied with their late masters in harrying the coasts of Bengal; and their depredations soon became so serious that, in 1608, the capital of the governor of Bengal was removed to Dacca that he might be better able to control the operations against them. In 1638 Matak Rai, who held Chittagong on behalf of the Rājā of Arakan, quarrelled with his master and sought the protection of the Mughals. He acknowledged himself the vassal of the Delhi empire and nominally made over the District to the governor of Bengal, who does not appear, however, to have taken effective possession. Meanwhile the depredations of the Maghs and Firinghīs had become intolerable, and in 1664–5 Shaista Khān, the governor of Bengal, dispatched a strong force against them. The expedition was a complete success; the ports at the mouth of the Meghnā and on Sandwīp island were captured by the fleet, the Firinghīs were induced to desert the cause of the Rāja of Arakan, and the town of Chittagong was carried by storm (1666). It was thereupon reannexed to Bengal and the name was changed to Islāmābād, the 'residence of the Faithful.' Many of the Firinghīs were removed to Dacca, where their descendants still reside.

Twenty years afterwards (1685), the East India Company sent out an expedition under Admiral Nicholson, with instructions to seize

Chittagong and fortify it on behalf of the English. This expedition proved abortive. Two years later the Court of Directors determined to make Chittagong the head-quarters of their Bengal trade, and Captain Heath was sent out with a fleet of ten or eleven ships to seize it; but when he reached Chittagong early in 1689, he found the place too strongly held, and abandoned the attempt. The District thus remained in the possession of the Mughals until 1760, when it was ceded to the East India Company along with Burdwān and Midnapore by the Nawāb Mīr Kāsim. The administration was placed in the hands of an English Chief with a council.

When Arakan was conquered by the Burmans in 1784, large numbers of its inhabitants fled to Chittagong. The Burmans demanded their surrender, and the refusal of the British to give them up was one of the causes that led to the first Burmese War. Repeated aggressions on the frontier culminated, in September, 1823, in the forcible seizure by the Burmans of the island of Shāhpuri at the mouth of the Naaf river, which had been for many years in the undisturbed possession of the British. In the war which ensued, a strong Burmese force, marching on Chittagong, surrounded and annihilated a British detachment of 300 sepoys with 2 guns at Rāmu, a few miles east of Cox's Bāzār. Before the Burmese commander could follow up his success, the setting in of the rains rendered the roads impassable; and soon afterwards, on the capture of Rangoon, the Arakan force was recalled.

During the Mutiny of 1857 three companies of the 34th Native Infantry stationed at Chittagong broke into mutiny on the night of November 18. They plundered the treasury, released the prisoners in the jail, murdered a native constable, and marched off, without molesting the residents, along the borders of Hill Tippera into Sylhet and Cāchār, where they were almost all killed or captured by the Sylhet Light Infantry (now the 10th Gurkha Rifles) and Kūki scouts.

Population.

The population of the District as now constituted increased from 1,127,402 in 1872 to 1,132,341 in 1881, to 1,290,167 in 1891, and to 1,353,250 in 1901. Owing to the cyclone of October, 1897, the growth of population during the last decade was only 4·9 per cent. Chittagong town is malarious, but elsewhere the climate is fairly healthy. The principal disease is fever, but cholera also claims its victims. Insanity is very prevalent. The principal statistics of the Census of 1901 are shown in the table on next page.

The towns are Chittagong, the head-quarters, and Cox's Bāzār. More than a third of the District (851 square miles) is covered by hill and jungle, and the density in the inhabited area is 825 persons per square mile, rising to 1,629 in the *thāna* of Chittagong. Since the cyclone of 1897 many of the old Magh immigrants seem to have returned to Arakan. There is also a large temporary

exodus thither of harvesters, boatmen, and coolies; and it was owing to their absence at the time of the Census of 1901 that Chittagong alone, of all the Eastern Bengal Districts, showed a preponderance of females over males. Of the people, 98 per cent. speak a corrupt dialect of Bengali, known from the name of the District as Chatgaiyā; the Maghs speak a kind of Burmese. No less than 72 per cent. of the population are Muhammadans. Most of these are local converts or their descendants, but there are also a number of foreigners whose ancestors formed part of the invading army of 1666. The proportion of Hindus (24 per cent.) is lower than in any Eastern Bengal District except Bogra and Rājshāhi.

Subdivision	Area in square miles	Number of Towns	Number of Villages	Population	Population per square mile	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Chittagong	1,596	1	1,217	1,153,081	722	+ 4·6	70,413
Cox's Bāzār	896	1	233	200,169	223	+ 6·5	7,906
District total	2,492	2	1,450	1,353,250	543	+ 4·9	78,319

The majority of the Muhammadans call themselves Shaikhs, but 9,000 claim to be Saiyids and 2,000 Pathāns. The Buddhists (65,000) are nearly all Maghs, who are either pure Arakanese, or the offspring of Bengali fathers and Arakanese mothers; the latter are known as Barua Maghs. Of the Hindus the Kāyasths (71,000) are the most numerous caste; many of them, and of the Baidyas (7,000), are the descendants of revenue officials employed by the early Arakanese, Musalmān, and British rulers. Many of the Sūdras (58,000) occupy a quasi-servile position, and hold their lands for services rendered. The weaving caste of Jugis has 35,000 representatives. Brāhmans (24,000) congregate in the neighbourhood of the famous shrines of Sītākund and Adināth. Only 60 per cent. of the population are dependent on agriculture, by far the lowest proportion in Eastern Bengal.

The number of Christians (1,237) is swollen by the inclusion of the Firinghī community at Chittagong, who are Roman Catholics. The number of native Christians is only 49. There is a very old Catholic church with a convent, where Firinghī boys and girls are educated; the church owns some landed property in the District. A Baptist missionary is also at work and has made a few converts.

Agriculture.

Except on the hills, the soil is everywhere alluvial, consisting of a mixture of clay and sand. In the neighbourhood of the sea-shore and within the reach of the tides stiff clay predominates; this is the least fertile soil in the District, and is rapidly exhausted. Farther inland the drainage from the hills sweeps

down quantities of sand, and the admixture of this with the alluvial clay forms the fertile loam which is the prevailing soil of the District. The hill streams are also heavily charged with organic matter from the decaying vegetation in the hills, and the silt which their waters deposit acts like manure and enables a rich succession of crops to be harvested. On low land winter (transplanted) rice is the main crop; it is often followed by a catch-crop of pulses. Higher lands grow a double rice crop, the earlier being harvested in August, and the later in December. Round the homesteads tobacco, chillies, the *pān* creeper, sugar-cane, and vegetables are grown; and on the river banks and sandy flats hemp, tobacco, melons, and pumpkins luxuriate. The sandy hills grow nothing but thatching grass. All along the coast-line, and up the creeks within reach of tidal water, embankments are necessary to exclude the salt water, which is fatal to rice cultivation.

The chief agricultural statistics for 1903-4 are shown below, areas being in square miles:—

Subdivision	Total.	Cultivated.	Cultivable waste.	Forests.
Chittagong .	1,596	764	161·5	237
Cox's Bāzār .	896	153	0·3	49
Total	2,492	917	161·8	286

Less than half the total area (including forests) is fit for cultivation; the uncultivable area comprises the sandy hills which traverse the District and the deltaic scrub forests in the south.

By far the most important crop is winter rice, which occupies three-fourths of the cultivated area; early rice, including the early irrigated (*panya*) variety, is grown on a fifth of the cropped area. Hemp thrives on the banks of the Sangu and in the neighbourhood of Sītākund, but jute is only a garden crop; good tobacco is cultivated in the Mātāmuhari valley. Tea is grown on 4,000 acres belonging to seventeen gardens. Most of the estates were purchased in fee-simple about forty years ago, and are situated on the low hills which are unfit for rice cultivation. Thatching-grass covers about 36 square miles of the hilly slopes; it does not require much cultivation, though the weeding is troublesome.

The cultivated area has increased by 18 per cent. in the last sixty years, and in the more remote parts the scrub jungle is still being cleared; in the deltaic country in the south reclamation is also spreading. A model farm has recently been opened near Chittagong town. Loans are rarely taken, but after the cyclone of 1897 1·2 lakhs was advanced for the restoration of the embankments which had been breached by the storm-wave.

The breeds of cattle are poor; the most valuable are buffaloes, which find abundant grazing in the forests and on the river flats. Pasture abounds in most parts, but in the highly cultivated central valleys it is scarce so long as the rice crop is on the ground.

The early spring rice crop is generally irrigated by damming a hill stream. Rice seedling-beds are watered from tanks and ditches; and sugar-cane, chillies, the *pān* creeper, and vegetable crops are irrigated in the same way.

Deep-sea fishing is practised in the Bay, the catch being dried on shore and sold in large quantities. Every river, tank, and ditch swarms with fish, which are caught in every variety of net and trap, and form an important item in the diet of the people. At Cox's Bāzār excellent pomfret, soles, and oysters are to be had.

Forests.

Nearly one-third of the District is covered by forests, and an area of 286 square miles has been 'reserved.' The most valuable trees are the *tūn* (*Cedrela Toona*), *gurjan* (*Dipterocarpus turbinatus*), *jārul* (*Lagerstroemia Flos Reginae*), *nāgeswar* (*Mesua ferrea*), *gamhār* (*Gmelina arborea*), and *chāplās* (*Artocarpus Chaplasha*). Canes and bamboos grow luxuriantly everywhere and are the most valuable produce of the forests, and a quantity of firewood is cut on the islands in the delta of the Mātāmuhari. In 1903-4 the receipts of the Forest department amounted to Rs. 15,000.

Trade and communications.

Tea is the only important manufacture; the out-turn in 1903 was 1,370,000 lb. Coarse cloth is woven in Pahārtali, and the Magh women of Cox's Bāzār make silk and cotton *lungīs* or kilts; but both industries are decaying. Bamboo mats and baskets and fishing-nets are manufactured for local use, and fine mats are woven of a reed known as *sītalpāti* (*Phrynium dichotomum*) and are to some extent exported. Chittagong was formerly famous for its ship-building, but the industry is moribund; only three vessels were built in 1901-2 and none since that year. There is a rice mill at Chittagong.

The trade of the port is dealt with in the article on CHITTAGONG TOWN. The chief exports are jute (sent from Nārāyanganj), rice husked and unhusked (mainly from Noākhāli and Tippera), and tea (from Assam). Cotton is also brought down from the Hill Tracts and exported. The imports, in addition to the items which are re-exported, are piece-goods, metals, sugar, salt, and oil. The chief centres of trade in the interior are Cox's Bāzār, Teknaaf, Mahājan's Hāt on the borders of Noākhāli, and Nāzir's Hāt on the Haldā river.

The Assam-Bengal Railway, which was opened for passenger traffic in 1895, traverses the District for nearly 50 miles before it crosses the Fenny and passes into Noākhāli. The branch line from Lākshām westwards to Chāndpur establishes communication with Calcutta. via the

India General Steam Navigation Company's steamers to Goalundo and the Eastern Bengal State Railway, the journey occupying 24 hours. Excluding 345 miles of village tracks, there are 533 miles of road maintained by the District board, but, with the exception of only 3 miles, the roads are all unmetalled, and very imperfectly bridged. The Dacca trunk road is maintained by the District board, and is bridged as far as the Fenny river (45 miles), which is crossed by a ferry. The Rāmgarh road runs north-east to the border of the District, the Hill Tracts road branching east from it at Hāthazāri. The Arakan road runs due south to Akyab; the Rāmu road leaves it at the 58th mile and connects with Ukhiā Ghāt on the Naaf estuary, and another branch runs to Cox's Bāzār. The Chāndpur road is more or less parallel to, and west of, the Arakan road, which it joins at the 38th mile; and the Jaldi road, which is still unfinished, is intended to connect Chāndpur with the Arakan road.

South of the Karnaphuli the traffic is carried almost entirely by water, the main rivers being connected by north and south cross-channels, which are partly artificial and are maintained by the District board. By these waterways inland communication can be had at all seasons from Chittagong southwards to Cox's Bāzār. The commonest boat is the *saranga*, a covered dug-out sometimes enlarged by side-planks, carrying up to 4 tons burden; the *balām* carries up to 10 tons, and the *gadu* as much as 22 tons. Chittagong is connected with Calcutta and Rangoon by coasting steamers of the British Indian and Asiatic Steam Navigation Companies' lines. Two steamers ply to Cox's Bāzār, and one steamer runs weekly to Rāngāmāti in the Chittagong Hill Tracts.

Administration.

For administrative purposes the District is divided into two subdivisions, with head-quarters at CHITTAGONG and COX'S BĀZĀR. The District Magistrate is assisted by 13 stipendiaries, of whom 5 are employed as *khās tahsīldārs*. Cox's Bāzār subdivision is in charge of a European Deputy-Magistrate. The District staff also includes an Inspector of schools, a Deputy-Conservator of forests, and an Executive Engineer.

The District and Sessions Judge is assisted in the disposal of civil work by two Subordinate Judges and sixteen Munsifs. The criminal courts include those of the Sessions Judge, the District Magistrate, and his assistants. The chief crimes are arson, forgery, perjury, fabrication of documents, and false personation.

The revenue history of this District, which is long and complicated, has been fully dealt with in the Settlement Report published in 1900; all that can be attempted here is to furnish an outline of the present position and to explain as briefly as possible how it arose. The District as a whole has never been permanently settled. The British occupation was almost immediately followed by the rough survey of 1764, the only

one of its kind made at that time in Bengal, and this embraced all the land then occupied. The total area measured was 609 square miles, of which 575 square miles were included in various estates, and 34 square miles belonged to the Jaynagar grant. When the Decennial Settlement was made in 1790, the measurement papers of 1764 were used as the basis of the assessment, and consequently nothing was permanently settled except the area of 575 square miles referred to above. According to the recent survey of 1898, these permanently settled estates comprise an area of 713 square miles, or two-sevenths of the District, the difference of 138 square miles being due mainly to under-measurement in 1764. The remaining five-sevenths are styled in local parlance *noābād*, or 'newly reclaimed land.' Of the permanently settled area of 575 square miles measured in 1764, about 417 square miles were included in revenue-paying estates, being assessed at 4·95 lakhs, and 158 square miles in revenue-free estates. Many of the latter were resumed and assessed to revenue in 1848, and the revenue-free area is now only 89 square miles, while the permanently settled revenue paying estates measure 624 square miles and pay a revenue of 5·30 lakhs. The Jaynagar grant was conferred in 1763 subject to periodical remeasurement and reassessment; it escheated in 1796, because the proprietor set up an unfounded claim under a forged grant. In 1815 the Court of Sadr Dīwāni Adālat held that the escheat was illegal, and ordered restitution, which was eventually made in 1848. The term of lease expired in 1902, and the revenue was then raised from Rs. 9,000 to Rs. 13,000 for an area of 38 square miles. The proprietors refused to accept the settlement, and the estate was taken under Government management: it was subsequently restored to them at the increased revenue, pending the decision of their claim that it is a permanently settled estate. An area of 751 square miles has now been accounted for; an additional area of 447 square miles was given out in 1848 under temporary leases. Part of this had been usurped by the proprietor of the Jaynagar grant under his forged grant prior to 1796; this was settled in 1848 direct with the persons in possession, who were styled *talūkdārs*. In the same year other state lands, which had been encroached upon by the proprietors of permanently settled estates and their tenants, were separated from the estates claiming them, and settled with the occupants for terms of either twenty-five or fifty years, and lands which had been reclaimed by squatters were similarly dealt with. The aggregate assessment on these two classes of estates was 2 lakhs. When the shorter leases fell in, the *tāluks* concerned were resettled at enhanced rentals up to 1898, by which date the longer terms had also expired, and a general resettlement was effected on the basis of a regular survey and scientific assessment which had been

carried out during the previous six years. At the same time, all new reclamations were settled with the occupants. Excluding Jaynagar, the total area thus brought under settlement in 1898 was 515 square miles, which was assessed until 1925 at 6 lakhs. About 65 square miles have been sold under the Waste Lands rules for tea cultivation, and 2 square miles have been acquired by the Assam-Bengal Railway; the area not included in any of these categories is still at the disposal of the state.

It must not be supposed from this brief summary that each of the classes of estates is homogeneous or is clearly defined from the others. On the contrary, the fields of permanently settled estates and of *tāluks* held under temporary leases are interlaced on the ground like squares on a chess-board, and the correct classification of each field according to the particular estate to which it belongs is a task of enormous difficulty. The temporarily settled estates number no less than 80,000; 34,500 are *tāluks*, and the occupants have a right to resettlement in 1925 at such rents as Government may then fix; 500 are *ijāras* or farms, which carry no such right; and 45,000 are *ryoti* holdings pure and simple. All these temporary holdings are grouped with reference to locality into five Government estates, each of which is managed by an officer styled a *khās tahsīldār*; their head-quarters are at Chittagong, Cox's Bāzār, Sātkaniā, Patiā, and Raojān, and their principal duty is the collection of the rents. The permanently settled estates number 28,636.

The total land revenue demand is equivalent to 35 per cent. of the gross rental of the District, and the incidence on each cultivated acre is Rs. 1-13-7, as compared with only R. 0-13-2 in Noākhāli and R. 0-14-9 in Tippera. Rents are very high, partly because the land is fertile and the pressure of population on the cultivated area is great, and partly because of the large remittances made to the District by persons employed elsewhere. The average rates per acre vary for the different classes of tenants: ryots holding at fixed rates pay Rs. 4-4-0 per acre; settled ryots, Rs. 5-11-2; occupancy ryots, Rs. 4-10-6; non-occupancy ryots, Rs. 4-8-3; and under-ryots, Rs. 6-8-6.

The following table shows the collections of land revenue and total revenue (principal heads only), in thousands of rupees:—

	1880-1	1890-1	1900-1.	1903-4.
Land revenue . .	8,02	9,45	11,12	11,70
Total revenue . .	14,71	17,00	20,32	21,82

Outside the municipalities of CHITTAGONG and COX'S BĀZĀR, local affairs are managed by a District board, which expends about 2 lakhs annually, mainly derived from the road cess rates and from a con-

tribution from Provincial revenues. In 1903–4 the income amounted to Rs. 1,96,000, of which Rs. 77,000 was derived from rates; and the expenditure was Rs. 1,83,000, including Rs. 85,000 on public works and Rs. 40,000 on education.

There are lighthouses at Kutubdiā and at Norman's Point. The Government embankment at Kutubdiā, which was destroyed by the storm-wave of 1897, has been repaired; and a Government dike protects part of the coast-line.

The District contains 13 *thānas* or police stations and 20 outposts. The force under the District Superintendent numbers 3 inspectors, 36 sub-inspectors, 36 head constables, and 426 constables, in addition to a rural police of 2,446 *chaukīdārs* and 215 *daffadārs*. The District jail at Chittagong has accommodation for 203 prisoners, and a subsidiary jail at Cox's Bāzār for 20.

In respect of education the District is very progressive. In 1901, 5·8 per cent. of the population (11·7 males and 0·5 females) could read and write. The total number of pupils under instruction increased from 46,184 in 1892–3 to 57,205 in 1900–1, while 57,844 boys and 7,723 girls were at school in 1903–4, being respectively 60·1 and 7·2 per cent. of those of school-going age. The percentage for boys was the highest in Bengal, and that for girls higher than elsewhere outside Calcutta. The total number of educational institutions, public and private, in 1903–4 was 1,987, consisting of one Arts college, 59 secondary schools, 1,138 primary schools, and 789 special schools. The expenditure on education was 1·9 lakhs, of which Rs. 40,000 was met from Provincial funds, Rs. 39,000 from District funds, Rs. 1,500 from municipal funds, and Rs. 90,000 from fees. The principal educational institution is the Arts college in Chittagong town.

In 1903 the District contained 13 dispensaries, of which 3 had accommodation for 60 in-patients. In all, 137,000 out-patients and 800 in-patients were treated during the year, and 4,000 operations were performed. The expenditure on medical institutions was Rs. 29,000, of which Rs. 10,000 was contributed by Government, Rs. 15,000 was derived from Local and Rs. 3,000 from municipal funds, and Rs. 8,000 from subscriptions.

Vaccination is compulsory only within municipal areas, but 62,000 persons, or 47 per 1,000 of the population, were vaccinated in 1903-4, compared with a ratio of 34 per 1,000 for Bengal.

[Sir W. W. Hunter, *Statistical Account of Bengal*, vol. vi (1876); H. J. S. Cotton, *Revenue History of Chittagong* (Calcutta, 1880); Geddes, *Report on Chittagong Tenures* (Calcutta, 1868); *Selections from the Records of the Government of Bengal on the Settlement of Noābād Lands in Chittagong* (Calcutta, 1877-1900), 6 vols.; C. G. H. Allen, *Settlement Report* (Calcutta, 1900).]

Chittagong Subdivision.—Head-quarters subdivision of Chittagong District, Eastern Bengal and Assam, lying between 21° 51′ and 22° 59′ N. and 91° 30′ and 92° 13′ E., with an area of 1,596 square miles. The subdivision consists of a long strip of land between the sea and the hills, divided in the centre by the Sītākund hills, and bordered on the north and south by the ranges of Hill Tippera and the Chittagong Hill Tracts. The population in 1901 was 1,153,081, compared with 1,102,161 in 1891. It contains the head-quarters town of CHITTAGONG (population, 22,140) and 1,217 villages. The density is 722 persons per square mile, compared with 223 in Cox's Bāzār and 543 for the whole District. The only important place besides Chittagong is SĪTĀKUND.

Chittagong Town.—Head-quarters of the Division and District of the same name in Eastern Bengal and Assam, situated in 22° 21′ N. and 91° 50′ E., on the right bank of the Karnaphuli river, 12 miles from its mouth. The population in 1901 was 22,140, of whom 13,513 were Muhammadans, 7,209 Hindus, 873 Christians, and 422 Buddhists. The history of the town has been narrated in the article on CHITTAGONG DISTRICT. It was constituted a municipality in 1864. The income during the decade ending 1901–2 averaged Rs. 58,000, and the expenditure Rs. 51,000. In 1903–4 the income was Rs. 69,000, including Rs. 20,000 derived from a tax on houses and lands, Rs. 12,000 from a conservancy rate, Rs. 4,000 from a tax on vehicles, and Rs. 4,000 from tolls, while Rs. 7,000 was received as fees from educational institutions. The incidence of taxation was Rs. 1–13–5 per head of the population. In the same year the expenditure was Rs. 55,000, the chief items being Rs. 1,000 spent on lighting, Rs. 15,000 on conservancy, Rs. 9,000 on medical relief, Rs. 6,000 on roads, and Rs. 8,000 on education. Water is supplied through pipes from a reserved tank to Bakshir Hāt, the commercial quarter.

Chittagong was already an important place of trade in the sixteenth century, when the Portuguese merchants gave it the name of Porto Grando, and it is still the chief port in Eastern Bengal. The construction of the Assam-Bengal Railway has made it the natural outlet for the trade of Assam and part of Eastern Bengal. The chief business is the export of jute, which is baled at Nārāyanganj and either shipped thence by steamer to Chāndpur and railed to Chittagong or dispatched direct in brigs to that port. Piece-goods, salt, and kerosene oil are imported, and rice, tea, and hides are the principal exports. The total value of the exports in 1903–4 was 316·7 lakhs, including jute (109·2 lakhs), tea (102·4 lakhs), and rice (23·6 lakhs). The value of the imports in the same year was 76·1 lakhs, including salt (2·3 lakhs), and machinery and railway plant (7·2 lakhs). A steamer jetty has been built, and a second is under construction. The town contains numerous public

buildings, including the church, a fine range of Government offices, the general hospital, and railway offices. The jail has accommodation for 203 prisoners. The Chittagong College teaches up to the F.A. standard of the Calcutta University, and in 1901 had 428 pupils on the rolls. There is also an important *madrasa* for Muhammadan students. Chittagong is the terminus of the Assam-Bengal Railway, and extensive workshops are situated at Pahārtali, a suburb of the town. It is also the head-quarters of the Commissioner of the Division, of the Assam-Bengal Railway Volunteer Rifles, who number 276, and of a detachment of the Eastern Bengal Volunteer Rifles, including a mounted section.

Chittagong Hill Tracts.—A frontier District in the Chittagong Division of Eastern Bengal and Assam, lying between 21° 11′ and 23° 47′ N. and 91° 41′ and 92° 42′ E., with an area of 5,138 square miles. It is bounded on the north by the State of Hill Tippera; on the west by Chittagong District; on the south by Arakan; and on the east by the Northern Arakan District of Burma and the Lushai Hills District of Assam.

Physical aspects.

Between the plains of Bengal and those of Upper Burma stretches a hilly tract of primaeval forest, bounded on the north by the State of Hill Tippera and by Assam, and on the south by the Burmese province of Arakan. A succession of hill ranges runs from north-west to south-east, determining the geographical and ethnical division of the whole country into three oblong strips, of which the most westerly is known as the Chittagong Hill Tracts; the central strip constitutes the LUSHAI HILLS, and the eastern the CHIN HILLS, which form part of Upper Burma.

The general aspect of the District is a tangled mass of hill, ravine, and cliff, covered by dense tree, bush, and creeper jungle. The mountains are steep, and can only be ascended slowly and painfully along narrow zigzag paths through the jungle. The highest hills are Keokrādang (4,034 feet) on the watershed of the Rankhiang river, and Pyramid hill (3,017 feet).

The principal rivers are the FENNY, KARNAPHULI, SANGU, and MĀTAMUHARI. The Karnaphuli and Fenny flow transversely across the main lines of the hills and have no regular valleys; but the reverse is the case with the Sangu and Mātāmuhari rivers, which run parallel to the ranges, until they debouch in the plains, and also with the two main tributaries of the Karnaphuli, the Kāsālang and Chingri, which do the same. These rivers are of great depth during the rains; but the rapidity and violence of their currents and their sharp turns and whirling eddies render them unnavigable by large craft within the limits of the District, and present considerable dangers to small boats. In addition to these rivers, there is a network of hill streams, on which

canoes alone are able to ply, and these only in parts. A mountain lake of great beauty is situated on the east of the Rāmakrī Tang hill; it is about a mile long by a quarter of a mile broad, and is well stocked with fish.

The District has not been geologically explored, but so far as is known the rocks belong to the Upper Tertiary period.

The hills are covered with *Laurineae*, *Dipterocarpeae*, *Ternstroemiaceae*, *Euphorbiaceae*, and *Leguminosae*. A list of the principal trees will be found in the section on Forests. There are many kinds of bamboos, including *Bambusa Tulda*, *vulgaris*, *arundinacea*, and *auriculata*, as well as *Melocanna bambusoides*, *Teinostachyum Dullooa*, and others. Canes of various species, *kurujpat* (*Licuala peltata*), and a thatching-grass known as *san* (*Imperata arundinacea*) are common products. Orchids and ferns grow everywhere in great variety and profusion.

The forests afford an asylum to numerous wild animals, including elephants, tigers, leopards, both ordinary and clouded (*Felis nebulosa*), rhinoceros, bison, three kinds of bear—the Himālayan black bear (*Ursus torquatus*), the sloth bear (*Melursus ursinus*), and the Malayan bear; and three kinds of deer—the *sāmbar*, *chītal*, and barking-deer. The rivers swarm with fish, and excellent mahseer fishing is to be had in their upper reaches.

The climate is cool, but the valleys are unhealthy in September. The rainfall is very heavy, averaging 94 inches for the whole District. December and January are the only dry months; 19 inches fall between February and May, and an average of 18 inches monthly from June to August, while there are 11½ inches in September, 6½ inches in October, and nearly 2 inches in November.

History.

The history of the Chittagong Hill Tracts is a record of constantly recurring raids on the part of the eastern hill tribes, and of the operations undertaken to repress them, of which a full narrative will be found in the article on the LUSHAI HILLS. It will suffice to say here that the earliest mention of these raids is to be found in a letter from the Chief of Chittagong to Warren Hastings, the Governor-General, dated April 10, 1777, complaining of the violence and aggressions of a mountaineer named Rāmu Khān, the leader of a band of Kūkis or Lushais; and that they continued without any long intermission down to 1891, when the Lushai Hills were annexed to British territory.

Population.

The recorded population increased from 69,607 in 1872 to 101,597 in 1881, to 107,286 in 1891, and to 124,762 in 1901. The Census of 1872 was, however, very imperfect, and the actual growth of population has probably not exceeded what might be expected in a sparsely inhabited but fairly healthy tract.

There is a large amount of insanity, and the proportion of persons mentally afflicted amounts to 1·3 per 1,000 of the population.

Statistics of the Census of 1901 are shown in the following table. There are no regular subdivisions, and the separate areas represent the circles or jurisdictions of the three chiefs, whose functions are described below under Administration:—

Circle.	Area in square miles.	Number of villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Chakmā . .	2,421	94	48,789	20	+ 7·1	3,290
Mong . .	653	128	31,898	49	+ 40·4	597
Bomong . .	2,064	74	44,075	21	+ 12·9	1,689
District total	5,138	296	124,762	24	+ 16·3	5,576

There are no towns, and 211 of the villages have a population of less than 500, while that of only one exceeds 2,000. The head-quarters of the District are at RĀNGĀMĀTI. If the area of 1,385 square miles of uninhabited forest Reserves be deducted, the density is 33 persons per square mile. There is a little immigration from Chittagong, and a few persons have emigrated to Hill Tippera. The proportion of females to every 100 males is only 90 in the District-born, and 83 in the total population. Buddhists number 83,000, Hindus 36,000, and Musalmāns 5,000. The Chakmās speak a corrupted Bengali; the Maghs, Arakanese, a dialect of Burmese; and the Tipperas a language of their own which is akin to Kāchārī.

The most important tribes are the Chakmās, who number 44,000; the Maghs, 35,000; and the Tipperas, 23,000: between them they account for nine-tenths of the population. The Chakmās are a Mongoloid race, probably of Arakanese origin, though they have intermarried largely with Bengalis. They are divided into three sub-tribes—Chakmā, Doingnak, and Tungjainya. The Doingnaks broke away from the main tribe a century ago and fled to Arakan; of late years some have returned to the Cox's Bāzār subdivision of Chittagong District. The Tungjainyas immigrated from Arakan as late as 1818, and spoke Arakanese until recently. Child-marriage is unknown, and divorce and remarriage of widows are permitted. The Chakmās occupy the central and northern portions, or rather less than half of the District; they burn their dead and offer invocations to spirits. The Maghs, as the Bengalis call the natives of Arakan, are found chiefly in the southern circle, under the sway of the Bomong chief; they are, for the most part, the descendants of Arakanese who fled hither when their own country was overrun by the Burmese in 1784. They are divided into three sections. The Jhūmia, or cultivators of *jhūms*, a term which will

be described later, regard themselves as the aborigines of the Hill Tracts, as contrasted with the Roang or Arakan Maghs, while the Barua or Rājbansi Maghs have intermarried with Bengalis. It is the last-named group from which the well-known Magh cooks are recruited. The Tipperas, who are found chiefly in the Mong circle, are described in the article on the HILL TIPPERA State, which is their home. The Chakmās and Maghs are Buddhists, while the Tipperas are Hindus. No less than 66,000 persons with 43,000 dependants are engaged in nomadic agriculture, and 10,000 are plough cultivators.

There are only 252 Christians, of whom 248 are natives; the Baptist Missionary Society has a centre at Rāngāmāti, but the number of converts is very small.

Agriculture.

The District consists largely of hills, which are unsuitable for plough cultivation, and the slopes cannot be terraced, as they are in the Himālayas, for want of stones for revetment. A great part of the total area is thus unsuitable for plough cultivation, and the only feasible method of tillage is that known as *jhūm*, which is practised under different names all over India wherever the conditions are similar. In the months of January and February a convenient piece of forest land is selected; the bamboos are cleared and the smaller trees felled, but large trees are only denuded of their lower branches: the cut jungle is then allowed to dry in the sun, and in April it is fired. If it has thoroughly dried and no rain has fallen since the *jhūm* was cut, this firing reduces all but the largest trees to ashes, and burns the soil to the depth of an inch or two. The ground is then cleared of charred logs and debris, and as soon as heavy rain falls and saturates the ground, the *jhūm* is planted with mixed seeds of cotton, rice, melons, cucumber, pumpkins, yams, and maize. The method of sowing is very primitive; the seeds are mixed in a basket, and the sower makes a small hole in the ground with a *dao* or chopper and drops in the mixed seeds. The maize ripens about the middle of July; the melons, vegetables, and grain are harvested in September, and the cotton in October and November. This method of cultivation entails great labour and incessant care; the young plants have to be constantly weeded and guarded against the depredations of wild hog, deer, monkeys, and parrots. Moreover, the system is a very wasteful one, as the same *jhūm* cannot be cultivated two years in succession, and the land takes from seven to ten years to recover. The out-turn is very uncertain, but from a successful *jhūm* the returns are very large—as much as three or four hundred-fold being occasionally obtained. Efforts are being made, with a fair measure of success, to induce the people to abandon *jhūming* in favour of plough cultivation, for which there is still plenty of suitable land lying waste in the valleys along the course of some of the larger rivers.

Rice is the staple crop; cotton is also grown for export; sesamum is important, and a little tea is cultivated. No agricultural statistics are available. Persistent efforts have been made by Government to encourage the hill-men to settle down to plough cultivation, wherever this is practicable; and that some success has been attained is shown by the fact that the rental of such lands has increased during the last six years from Rs. 10,000 to Rs. 16,000. The area under the plough now extends to nearly 14,500 acres; three-quarters of it grow rice and one-fifth mustard. The growth of cotton and *til* is also on the increase.

Forests.

In addition to the 'unclassed' forests, the area of which amounts to 3,753 square miles, 'reserved' forests cover 1,385 square miles, or more than a quarter of the District. They are divided into five Reserves: namely, the Kāsālang (763 square miles), Rankhiang (215 square miles), Sītāpahār (11 square miles), Mātāmuhari (251 square miles), and Sangu (145 square miles). The forests contain valuable timber and bamboos; the most useful trees are the *jārul* (*Lagerstroemia Flos Reginae*), *tūn* (*Cedrela Toona*), *gamhār* (*Gmelina arborea*), *chāplās* (*Artocarpus Chaplasha*), and *gurjan* (*Dipterocarpus turbinatus*). In 1903–4 the receipts of the Forest department amounted to Rs. 88,000.

Trade and communications.

Cotton cloth is woven by the hill-women for home consumption. Dug-outs are made and exported in considerable numbers to Chittagong and Noākhāli, where they are shaped into *sarangas*, or built up into *bālām* boats. The timber generally selected is *chāplās* or *gamhār*. The dimensions of these dug-outs vary from a small canoe, 18 feet long and 2½ feet broad, to big *sarangas*, 60 feet by 8; and their price ranges from Rs. 10 to Rs. 700. Tea is manufactured on one estate, which yielded an out-turn of 19,000 lb. in 1903. *Daos* and axe-heads are made in the winter by immigrant blacksmiths from Monghyr and elsewhere.

Cotton is the principal article of export; 69,000 maunds were exported in 1903–4. Rice, sesamum seed, and a little mustard seed and tobacco form the remaining staples. There is a small import of piece-goods, rice, salt, tobacco, and dried fish. The trade is principally in the hands of Bengalis, and is carried on by water with Chittagong. The chief centres are at BĀNDARBAN, Chandraghonā, Rankhiang, RĀNGĀMĀTI, Subalong, BARKAL, Mahālcharī, and Ajodhyā.

The rivers are the principal means of communication, but the interior is being gradually opened up by roads. The District contains 230 miles of unmetalled roads, but these are only bridle-paths and are not passable for carts. The most important connect Rāngāmāti with Chittagong and with Demāgiri in the Lushai Hills; the former is bridged throughout, but the latter is a fair-weather track only. Bridged

bridle-paths are under construction from Rāngāmāti to Mahālcharī, from Bāndarban to Poāng's Hāt, and from Bāndarban to Chandraghonā. A Government steamer plies weekly on the Karnaphuli river from Chittagong to Rāngāmāti, a distance of 65 miles. A tramway has been constructed at Barkal to enable travellers to avoid the rapids in the Karnaphuli.

Administration.

The Hill Tracts formed part of Chittagong District until 1860, when they were separated from Chittagong and placed under an officer called the Hill Superintendent. Seven years later his functions were enlarged, and he was styled the Deputy-Commissioner of the Hill Tracts. In 1891, after the annexation of the Lushai Hills, the tract lost much of its importance, and was reduced to the status of a subdivision in charge of an Assistant Commissioner immediately subordinate to the Divisional Commissioner. In 1900 it was again formed into a District by Regulation I of that year, and the old designation of Superintendent was restored to the officer in charge. The boundaries were revised, and a strip on the east, including Demāgiri with a population of about 1,500, was transferred to the Lushai Hills. The District was at the same time divided into the Chakmā, Mong, and Bomong circles, each of which was placed under the jurisdiction of its own chief, who was made responsible for the collection of the revenue and for regulating the internal affairs of his villages. The Chakmā circle occupies the centre and north of the District, the Bomong circle is in the south, and the Mong circle in the north-west. A headman is in charge of each village; he collects the revenue and receives a commission on his collections. The migration of ryots from one circle to another is discouraged as much as possible.

The ordinary codes of civil and criminal procedure are quite unsuited to the requirements of the primitive inhabitants of this remote tract, and the administration of justice is carried on in accordance with a few simple rules framed under Regulation I of 1900. Petty cases are dealt with by the village headmen and the three chiefs, subject to the general control and supervision of the Superintendent and his two assistants, who hear appeals from their orders and themselves try all important cases and suits; the Commissioner of the Division exercises the powers of a Sessions Judge and also of a High Court, except in the case of sentences of death, which require the confirmation of the Local Government.

In former times the only revenue obtained from the District consisted of a capitation or *jhūm* tax, which in 1846–7 yielded Rs. 11,800. Since 1867 revenue has also been derived from the forests and from the lease of thatching-grass plots, and persons cultivating with the plough have been assessed on the area of their holdings in lieu of the old capitation

tax; the only stamp revenue, however, is that obtained from the sale of postage stamps, and no income-tax is realized.

The capitation tax is now realized at the rate of Rs. 4 per family, of which Rs. 2 goes to the chief and R. 1 to the headman, and only R. 1 is taken by Government. The Government demand, however, is fixed for a term of years and is paid by the chief irrespective of the actual collections, which vary from year to year. The total revenue in 1903-4 was Rs. 1,28,000, including Rs. 87,000 from forests, Rs. 22,000 from land revenue, Rs. 9,000 from thatching-grass, Rs. 8,000 from the capitation tax, and Rs. 2,000 from stamps.

Land revenue is assessed only on land cultivated with the plough. In order to encourage the people to take to this form of cultivation, all new holdings are given free for three years; the revenue is then fixed by the Superintendent, and may not be enhanced for ten years. The average rate of assessment is Rs. 1-8 per acre. The chief receives two annas and the headman three annas of every rupee of rental realized for plough cultivation, with the object of enlisting their co-operation in encouraging it.

The police force is under the direct control of the Superintendent. It consists of one inspector, 7 sub-inspectors, 17 head constables, and 113 constables, including a reserve of 3 sub-inspectors, 10 head constables, and 59 constables. There are in all 8 police stations. Prior to the annexation of the Lushai Hills, a much stronger body of police was maintained as a protection against raids; its strength in 1872 was 656. The present police are armed with Martini-Henri rifles. There is a lock-up at Rāngāmāti, in which persons sentenced to short terms of imprisonment are confined; other prisoners are sent to the jail at Chittagong.

Male education is further advanced than might have been expected in such a remote tract, and the Census of 1901 showed that 4·5 per cent. of the population (7·9 males and 0·3 females) could read and write. The number of pupils in the schools increased from 721 in 1892-3 to 1,195 in 1900-1, while 1,574 boys and 115 girls were at school in 1903-4, being respectively 15·3 and 1·3 per cent. of those of school-going age. The number of educational institutions, public and private, in that year was 111: namely, 3 secondary, 81 primary, and 27 special schools. The expenditure on education was Rs. 20,000, of which Rs. 16,000 came from Provincial funds and Rs. 700 from fees.

The Hill Tracts contain 2 small police hospitals, one at Rāngāmāti and the other at Bāndarban. Two charitable out-door dispensaries were opened in 1902 at Mānikcherī and Mahālcharī, and a third in 1904 at Rāngāmāti. During 1903 the cases of 6,000 out-patients were treated, and 122 operations were performed; the cost of maintenance, amounting to Rs. 2,000, was met by Government.

Vaccination has been compulsory since 1893. The great distances and bad communications are obstacles to progress, but 6,700 persons, or 54 per 1,000 of the inhabitants, were successfully vaccinated in 1903-4.

[Capt. T. H. Lewin, *Hill Tracts of Chittagong and Dwellers thereof* (Calcutta, 1869), and *The Fly on the Wheel* (1885); and Emil Riebeck, *Chittagong Hill Tracts*, translated by Prof. A. H. Keane (1885).]

Chittang.—River in Ambāla and Karnāl Districts, Punjab. *See* CHAUTANG.

Chittoor Subdivision (*Chittūr*).—Subdivision of North Arcot District, Madras, consisting of the *tāluks* of CHITTOOR and PALMANER and the PUNGANŪRU *zamīndāri tahsīl*.

Chittoor Tāluk.—*Tāluk* in the centre of North Arcot District, Madras, lying between 13° and 13° 31′ N. and 78° 48′ and 79° 19′ E. It is the largest *tāluk* in the District, having an area of 793 square miles; and it contains one town, CHITTOOR (population, 10,893), the head-quarters of the District, and 338 villages. The population in 1901 was 209,868, compared with 200,249 in 1891. The demand for land revenue and cesses in 1903-4 was Rs. 3,21,000. The *tāluk* consists of an undulating plain, broken by a large number of naked rocky hills rising abruptly from the surrounding country and covered with enormous granite boulders. The soil is good and large areas are under irrigation, and the contrast between the vivid green of the patches of cultivation and the varied hues of the rocky eminences is most picturesque.

Chittoor Town ('little town').—Head-quarters of North Arcot District, Madras, and of the *tāluk* of the same name, situated in 13° 13′ N. and 79° 6′ E., in the valley of the Poini river, on the South Indian Railway 18 miles north of Kātpādi junction, and 100 miles by road from Madras. Population (1901), 10,893. Being 990 feet above the sea, during the winter months it is pleasantly cool; but in former years it suffered from more than one outbreak of virulent fever, and in consequence the head-quarters of some of the District staff were removed to VELLORE. The place was a military station until 1874, but is now, except as the official centre, of no importance. It contains most of the usual courts and offices, and a Roman Catholic chapel.

Chittūr.—Head-quarters of the *tāluk* of the same name in Cochin State, Madras, situated in 10° 42′ N. and 76° 45′ E., on the Anaimalai river. Population (1901), 8,095, of whom 96 per cent. are Hindus, chiefly Brāhmans and Nāyars. Several of the latter are substantial landholders. Cotton-weaving is carried on to some extent in the town. It contains a small palace, the offices of the *tahsīldār* and the District Munsif, and a high school.

Chobāri.—Petty State in KĀTHIĀWĀR, Bombay.

Chodavaram.—Minor *tāluk* in the Agency tract of Godāvari District, Madras, lying between 17° 9′ and 17° 52′ N. and 81° 28′ and

81° 53′ E., with an area of 715 square miles. It is bounded on the south and west by the Godāvari river, and includes almost the whole of the RAMPA hill country. The population in 1901 was 23,229. It contains 232 villages, Chodavaram being the head-quarters. The demand on account of land revenue and cesses in 1903–4 amounted to Rs. 7,400. The whole area is occupied by the Eastern Ghāts, and forests cover nearly 575 square miles, of which 401 square miles belong to Government, but are not 'reserved,' the Forest Act not having been extended to this tract. In places the forests are very heavy, but it is impossible to exploit them owing to want of communications. There is only one metalled road, from Rājahmundry to Chodavaram. The forest products are timber, tamarinds, turmeric, oranges, wax, &c., which are brought by Māla traders to the markets at Chodavaram and Devipatnam. The chief crops are rice, pulses, *rāgi*, *cambu*, and maize, while a little tobacco is grown for local consumption. Graphite is met with in a few places, but not in paying quantities.

Chok.—Petty State in KĀTHIĀWĀR, Bombay.

Chola (*Choda*; in Asoka's inscriptions, *Chora*; the *Chorai* of Ptolemy, *Choliya* of Hiuen Tsiang, and *Sora* of Pliny).—One of the three ancient kingdoms which, according to tradition, originally divided the South of India. Its capital was at one time at Uraiyūr, now a suburb of Trichinopoly. Little definite is known of its rulers until the tenth century, when the capital was Tanjore, but the deciphering of the numerous inscriptions of the dynasty which survive is gradually clearing up their history from that time forward. Their expansion in the tenth and eleventh centuries is one of the great landmarks of South Indian history. They subverted both the Pallavas and the Pāndyas and also the Eastern Chālukyas, with whom they subsequently maintained friendly relations for three generations by intermarriages, until eventually an Eastern Chālukya prince ascended the Chola throne about the close of the eleventh century. Rājārājā Deva, who came to the throne at the end of the tenth century, and was perhaps the greatest of their kings, seems to have ruled over almost all of what is now the Madras Presidency, as well as Mysore and Coorg. He had an organized army and a regular system of civil administration. He did much to beautify his capital city. It was about this time that a careful survey of the cultivable land in the Tamil country was conducted. His successors followed in his footsteps and expended their wealth in the construction of beautiful temples and useful irrigation works—among the latter the Grand Anicut and several channels in the Tanjore delta. The dynasty declined towards the end of the twelfth century, falling before the Pāndyas of Madura, the Hoysalas of Dorasamudra, and the Kākatīyas of Warangal, and was eventually overthrown by the Musalmān invasion of 1310.

Chola.—Pass in the Chola range of the Eastern Himālayas, 14,500 feet above the sea, situated in 27° 25′ N. and 88° 49′ E., leading from Sikkim State to the Chumbi valley in Tibet.

Cholistān.—*Tahsīl* in Bahāwalpur State, Punjab. *See* NAHR SĀDIKIYAH.

Chopda Tāluka.—*Tāluka* of East Khāndesh District, Bombay, lying between 21° 8′ and 21° 25′ N. and 75° 1′ and 75° 34′ E., with an area of 368 square miles. There are two towns, CHOPDA (population, 18,612), the head-quarters, and ADĀVAD (5,983); and 91 villages. The population in 1901 was 75,550, compared with 72,819 in 1891. The density, 205 persons per square mile, is much above the District average. The demand for land revenue in 1903–4 was 2·3 lakhs, and for cesses Rs. 15,000. The *tāluka* consists of two valleys, divided by a spur of the Sātpurā range that runs across it obliquely from east to west. The southern valley is a part of the rich north Tāpti plain, and follows the course of that river. The northern or inner valley, known as the Dhauli *taraf*, is a broken and hilly country, unsurveyed, covered with dense forest, inhabited by Bhīls, and infested by wild beasts. The Tāpti valley is fairly supplied with well water, but none of the streams is suited for irrigation. The chief rivers are the Tāpti, and its tributaries the Aner and Guli. The prevailing soil is a rich, black, alluvial clay, resting on a yellowish subsoil. The annual rainfall averages 25 inches.

Chopda Town.—Head-quarters of the *tāluka* of the same name in East Khāndesh District, Bombay, situated in 21° 15′ N. and 75° 18′ E., 8 miles from the right bank of the Tāpti, 51 miles north-east of Dhūlia. Population (1901), 18,612. Chopda is probably a settlement of considerable antiquity, and its ruined fort shows that it was a place of much consequence under early Hindu rulers. In 1600 it was a large town and well peopled, with a temple of Rāmeshwar, to which Hindus came from great distances. It was handed over by Sindhia in 1820, restored to him in 1837, and came again under British rule in 1844. There is a large trade in cotton and linseed. The municipality, which was established in 1870, had an average income during the decade ending 1901 of Rs. 10,000. In 1903–4 the income was Rs. 9,900. The town contains a dispensary, 5 cotton-ginning factories, 2 cotton-presses, and 6 schools with 456 pupils, one of which, with 30 pupils, is a girls' school.

Chor.—Peak in Sirmūr State, Punjab. *See* CHAUR.

Chorāngla.—Petty State in REWĀ KĀNTHA, Bombay.

Chorāsi.—Central *tāluka* of Surat District, Bombay, lying between 21° 2′ and 21° 17′ N. and 72° 42′ and 72° 59′ E., with an area of 102 square miles. Chorāsi contains 2 towns, SURAT (population, 119,306), the District head-quarters, and RĀNDER (10,478); and

65 villages. The population in 1901 was 169,100, compared with 159,170 in 1891. Owing to the inclusion of the city, the density is as high as 1,658 persons per square mile. Land revenue and cesses amounted in 1903–4 to 2·8 lakhs. The *tāluka* forms a richly wooded plain, with highly cultivated fields enclosed with hedges. With the exception of the Tāpti, which forms the northern boundary for about 18 miles, there is no river of importance, and the water-supply is defective, owing to the smallness of the village reservoirs and the brackishness of the well water.

Chotā Nāgpur Division.—A Division of Bengal, lying between 21° 58′ and 24° 49′ N. and 83° 20′ and 86° 54′ E. The head-quarters of the Division are at RĀNCHĪ, and it includes five Districts, with area, population, and revenue as shown below:—

District.	Area in square miles	Population, 1901.	Demand for land revenue and cesses, 1903–4, in thousands of rupees.
Hazāribāgh	7,021	1,177,961	2,46
Rānchī	7,128	1,187,925	1,65
Palāmau	4,914	619,600	1,71
Mānbhūm	4,147	1,301,364	2,22
Singhbhūm	3,891	613,579	1,64
Total	27,101	4,900,429	9,68

NOTE.—In the Report of the Census of 1901 the area of Singhbhūm was shown as 3,753 square miles. The figure given above was supplied by the Surveyor-General.

After the suppression of the Kol rebellion of 1831–2 this tract was exempted by Regulation XIII of 1833 from the operation of the general laws and regulations, and every branch of the administration was vested in an officer appointed by the supreme Government and styled the Agent to the Governor-General, South-West Frontier. In 1854 the designation of the province was changed to Chotā Nāgpur by Act XX of that year; and it has been administered since that date as a non-regulation province under the Lieutenant-Governor of Bengal, the title of the chief executive officer being at the same time changed to Commissioner, and that of officers in charge of Districts to Deputy-Commissioner. The Commissioner exercises general control over the small Chotā Nāgpur States of Kharsāwān and Saraikelā.

The so-called Chotā Nāgpur plateau extends beyond the limits of the Division into the Tributary States of Chotā Nāgpur and Orissa on the south-west and south, and through the Santāl Parganas to the Ganges on the north-east, while its outlying fringes stretch out into the south of the Patna and Bhāgalpur Divisions on the north and into the west of the Burdwān Division on the east. The word 'plateau' is used, for

want of a better designation, for this tract of elevated country, and is not intended to imply that the area referred to forms an open table-land like that to the north of Cape Colony. There are three plateaux in the stricter acceptation of the term, one in Rānchī and two in Hazāribāgh. Elsewhere the country is often very broken, and numerous ranges or groups of steep hills are intersected by deep ravines and occasionally by open valleys. The geological formation is gneiss, freely interbedded with micaceous, siliceous, and hornblendic schists, passing into transition or metamorphic rocks in West Bengal and South Bihār.

The recorded population increased from 3,147,699 in 1872 to 4,225,989 in 1881 and to 4,628,792 in 1891; but the earlier enumerations were defective. The density is 181 persons per square mile, compared with 438 for Bengal as a whole. In 1901 Hindus constituted 68·5 per cent. of the total population, Muhammadans 5·7 per cent., Christians (of whom all except 1,191 were natives) 2·9 per cent., and Animists 22·7 per cent., while among the remainder were 853 Jains. The Division is the home of numerous non-Aryan tribes, who were never properly subjugated either by the early Aryan invaders or by the Pathān and Mughal emperors, or indeed by any outside power until the advent of the British. They have thus preserved in their mountain fastnesses an individuality in respect of tribal organization, religion, and language which their congeners in the plains have long since lost. They are gradually abandoning their tribal dialects in favour of the nearest Aryan form of speech, Hindī to the north and west, Oriyā to the south, and Bengali to the east; but a large number still speak their own languages, which are divided by philologists into two great families, the Mundā and the Dravidian. This distinction, however, is merely an indication of some earlier political condition, and does not represent any corresponding divergence of physical type. The most distinctive of the tribes represented are the Santāls (*see* SANTĀL PARGANAS) in Hazāribāgh, Mānbhūm, and Singhbhūm, the MUNDĀS in Rānchī, the ORAONS in Rānchī and the Tributary States, the Hos in Singhbhūm, the BHUMIJS in Mānbhūm and Singhbhūm, and the Gonds in the Tributary States. A remarkable increase in the number of Christians took place during the decade ending 1901, due principally to new conversions in Rānchī, where Christians numbered 124,958, compared with only 75,693 ten years previously. The German Lutheran missionaries have here met with great success; and the District is also a great centre of Roman Catholic missionary enterprise, containing three-fifths of the total number of their converts in Bengal.

The Division contains 13 towns and 23,876 villages. RĀNCHĪ (25,970) is the only town with a population exceeding 20,000 inhabitants. Chotā Nāgpur possesses great mineral wealth, especially in respect of coal, the principal fields being the Girīdīh coal-field in

Hazāribāgh, the Jherriā coal-field chiefly in Mānbhūm, and the Daltonganj coal-field in Palāmau. The output of coal and coke in 1903 was 3,329,000 tons. Mica is mined in Hazāribāgh, and 547 tons were produced in 1903. The Jain temples at PARASNĀTH HILL yearly attract thousands of pilgrims; other interesting antiquities are the ruins of a fort at PĀNCHET and of temples at several places in the Mānbhūm District.

Chotā Nāgpur States.—A term formerly applied to nine Native States in Chotā Nāgpur, Bengal, consisting of the seven Tributary States of CHĀNG BHAKĀR, KOREĀ, SURGUGĀ, UDAIPUR, JASHPUR, GĀNGPUR, and BONAI, and the two Feudatory States of KHARSĀWĀN and SARAIKELĀ. The five States first named were transferred in October, 1905, to the Central Provinces, as part of the territorial redistribution connected with the formation of the new Province of Eastern Bengal and Assam, and the Oriyā-speaking States of Gāngpur and Bonai were at the same time attached to the Orissa Tributary States. The Chotā Nāgpur States therefore now include only the two small States of Kharsāwān and Saraikelā. These States, which lie between 22° 29′ and 22° 54′ N. and 85° 38′ and 86° 0′ E., have a total area of 602 square miles, and are practically wedged in between the Districts of Mānbhūm and Singhbhūm. They are bounded on the north by the Districts of Rānchī and Mānbhūm; on the east and west by Singhbhūm; and on the south by the Orissa State of Mayūrbhanj and Singhbhūm.

Chotā Sinchulā.—Peak in the Sinchulā range, in the Alipur subdivision of Jalpaigurī District, Eastern Bengal and Assam, situated in 26° 48′ N. and 89° 34′ E., about 7 miles north of Buxa cantonment and separating British from Bhutān territory. The elevation is 5,695 feet above sea-level.

Chota Udaipur.—State in the Political Agency of Rewā Kāntha, Bombay, lying between 22° 2′ and 22° 32′ N. and 73° 47′ and 74° 20′ E., with an estimated area of 873 square miles. It is bounded on the north by the State of Bāriya; on the east by Alī Rājpur; on the south by petty States in the Sankheda Mehwās; and on the west by Baroda territory. The river Orsing runs through the State, dividing it into two nearly equal portions; the Narbadā washes its southern boundary for a few miles. The country is hilly and overgrown with forest. During the greater part of the year the climate is damp and unhealthy, and fever is prevalent.

The family of the chief are Chauhān Rājputs, who, when driven out of their former territories by the advance of the Musalmāns about the year 1244, entered Gujarāt, and took possession of Chāmpāner city and fort. On the capture of Chāmpāner in 1484 by Mahmūd Begara, they withdrew to the wild parts of their former possessions east of Chāmpāner, one branch founding the State of Bāriya and the other the State

of Chota Udaipur. In the disturbances of 1858 the chief refused to hold any communication with Tāntiā Topī, one of the leaders of the rebellion, and prepared to defend himself against any attempt to enter his capital. It was when encamped before the town of Chota Udaipur that Tāntiā Topī was defeated by General Parke. The chief bears the title of Māhārāwal. His house follows the rule of primogeniture, and holds a *sanad* of adoption. He is entitled to a salute of nine guns. The family moved at one time to Mohan, a most advantageous position for commanding the passes, and built a fort there. Hence the State is sometimes called Mohan. But this capital was abandoned in favour of Chota Udaipur. It was probably in consequence of the defenceless position of the latter place that the chiefs became tributary to the Gaikwār. The political control has since 1822 been transferred to the British Government.

The Census of 1901 returned a population of 64,621, or 74 persons per square mile, living in one town (Chota Udaipur) and 502 villages. Hindus numbered 62,516 and Musalmāns 1,965. During the last decade the State lost 31 per cent. of its population owing to famine. Of 297 square miles of cultivable area, 77 square miles were cropped in 1903–4. Cotton occupied about 11½ square miles and sesamum 6⅓ square miles. About 225 square miles of the total area are covered by forest. There are no manufactures or mines; but marble and iron exist in the soil, and expert advice is being obtained with a view to their exploitation. The principal exports are timber, cotton, and flowers of the *mahuā* tree. The main route from Mālwā to Baroda and the sea passes through the territory.

The Rājā is a chief of the second class, and has power to try his own subjects for capital offences. The income of the State in 1903–4 was about 2 lakhs. A tribute of Rs. 8,908 is payable to the Gaikwār of Baroda, the amount being collected by the British Government. The chief maintains a police force of 257 men, and a mounted military corps of 23 men, who act as a bodyguard. There is one jail. The State contains 14 schools with an average daily attendance of 456 pupils, and one dispensary which treated 4,473 patients in 1903–4. In the same year 2,733 persons were vaccinated.

Chotila.—Petty State in KĀTHIĀWĀR, Bombay.

Chowbe Jāgirs.—Collection of estates in the Baghelkhand Agency, Central India. *See* CHAUBE JĀGĪRS.

Chowghāt (*Chaughāt*).—Town in the Ponnāni *tāluk* of Malabar District, Madras, situated in 10° 35′ N. and 76° 2′ E. Population (1901), 7,426. It was formerly the head-quarters of a *tāluk* of the same name, which was amalgamated in 1860 with Kutnād and Betatnād into the present *tāluk* of Ponnāni. It contains a District Munsif's court and a deputy-*tahsīldār's* office. At Palayūr to the east

there is a Romo-Syrian church, noted as one of the seven original churches of Malabar. The town lies on a backwater, connected by canals with Ponnāni on the north and Travancore on the south.

Chuādānga Subdivision.—Eastern subdivision of Nadiā District, Bengal, lying between 23° 22′ and 23° 50′ N. and 88° 38′ and 89° 1′ E., with an area of 437 square miles. The subdivision consists of a flat widespread plain intersected by numerous streams, which have now in many instances silted up. The population increased from 245,422 in 1891 to 254,589 in 1901, the density being 583 persons per square mile. The subdivision contains 485 villages, CHUĀDĀNGA being its head-quarters.

Chuādānga Village.—Head-quarters of the subdivision of the same name in Nadiā District, Bengal, situated in 23° 39′ N. and 88° 51′ E., on the left bank of the Mātābhānga river. Population (1901), 3,147. Chuādānga is a station on the Eastern Bengal State Railway, and an important trade centre. It contains the usual public offices; the sub-jail has accommodation for twelve prisoners.

Chuda State.—State in the Kāthiāwār Political Agency, Bombay, lying between 22° 23′ and 22° 30′ N. and 71° 37′ and 71° 51′ E., with an area of 78 square miles. The population in 1901 was 12,005, residing in one town and 13 villages. The revenue in 1903–4 amounted to 1·2 lakhs, and 39 square miles were cultivated. Chuda ranks as a third-class State in Kāthiāwār. It is an offshoot from Wadhwān. The ruler first entered into engagement with the British Government in 1807. He bears the title of Thākur.

Chuda Town.—Chief town of the State of the same name in Kāthiāwār, Bombay, situated in 22° 29′ N. and 71° 44′ E. Population (1901), 5,581. It is a railway station on the Bhavnagar-Wadhwān line.

Chudesar. Petty State in REWĀ KĀNTHA, Bombay.

Chumalhari.—Snow peak on the boundary between Tibet and the north-western corner of the State of Bhutān, situated in 27° 50′ N. and 89° 16′ E., 23,933 feet above sea-level. Chumalhari is known as one of the most sacred mountains in Tibet.

Chumbul.—River in Central India. *See* CHAMBAL.

Chumurchi.—Village in the south-west of the State of Bhutān, situated in 26° 55′ N. and 89° 7′ E.

Chunār Tahsīl.—*Tahsīl* of Mirzāpur District, United Provinces, comprising the *parganas* of Bhagwat, Karyāt Sīkhar, Ahraurā, Chunār, Bhuili, and *tāluka* Saktesgarh of *pargana* Kantit, and lying between 24° 47′ and 25° 15′ N. and 82° 42′ and 83° 12′ E., with an area of 562 square miles. Population fell from 185,582 in 1891 to 176,532 in 1901. There are 580 villages and two towns: AHRAURĀ (population, 11,328) and CHUNĀR (9,926), the *tahsīl* head-quarters. The demand for land revenue in 1903–4 was Rs. 2,87,000, and for cesses Rs. 45,000.

The density of population, 314 persons per square mile, is considerably above the District average. The Ganges divides the *pargana* of Karyāt Sīkhar on the north from the rest of the *tahsīl*, which stretches away south to the middle of the Vindhyan plateau. In the west the scarp of the Vindhyas reaches almost to the Ganges, and scattered hills are found on the bank of that river; but in the east lies a broader stretch of level land. The Jirgo rises in the south of the *tahsīl*, and flows north to join the great river near Chunār. The area under cultivation in 1903–4 was 242 square miles, of which 36 were irrigated. Wells supply more than half the irrigated area, and tanks most of the remainder.

Chunār Town.—Head-quarters of the *tahsīl* of the same name in Mirzāpur District, United Provinces, situated in 25° 7′ N. and 82° 54′ E., on the right bank of the Ganges and on the East Indian Railway. Population (1901), 9,926. Tradition assigns a high antiquity to the fort of Chunār. Bhartrīnāth, brother of the half-historic Vikramāditya of Ujjain, is said to have chosen this solitary wooded rock overhanging the Ganges as the site of his hermitage. In the early Muhammadan period a Hindu, named Prithwī Rājā, possessed the fortress, and after his death it was seized by the Musalmāns. A mutilated slab over the gateway, however, commemorates its recovery from the invaders. It again fell into the hands of the Muhammadans, though the actual command of the fort remained in the hands of the Baheliās till it became British. Sher Khān, Sūr, afterwards Sher Shāh, obtained Chunār by marriage with the daughter of a local chief; and in the struggles between Pathān and Mughal the fort was of great importance as the key to Bengal and Bihār. It was captured by Humāyūn in 1537, and recaptured shortly after by Sher Shāh. In 1575 Akbar's armies took the place, which remained in the power of the Mughals till the eighteenth century, when it fell into the hands of the Nawāb of Oudh. The British troops under Major Munro attacked it without success in 1763; but it came into our possession after the battle of Buxar in the following year. After Rājā Chet Singh's outbreak in 1781, Warren Hastings retired to Chunār, where a force was collected under Major Popham, which expelled Chet Singh from his strongholds in the neighbourhood. Hastings was fond of the situation and climate of Chunār, and his residence is still standing. The fort was used for some time as a place of confinement for state prisoners, and was garrisoned up to 1890. The Provincial reformatory for juvenile offenders in the United Provinces is now located here.

The fort is built on an outlier of the Vindhyan range, a sandstone rock jutting into the Ganges and deflecting the river to the north. It lies nearly north and south, 800 yards long, 133 to 300 broad, and 80 to 175 feet above the level of the surrounding country. The circum-

ference of the walls is about 2,400 yards. The present fortifications were for the most part constructed by the Musalmāns, apparently from materials obtained by pulling down still older Hindu buildings. The town lies immediately north of the fort in the angle between the Jirgo and the Ganges, and contains a dispensary and a branch of the Church Missionary Society. Close by is the tomb of Shāh Kāsim Sulaimānī, a saint whose piety was clearly established, when he was carried prisoner to Delhi, by his fetters dropping off each evening at the time of prayer. His cap and turban are still shown at his tomb, and when gently rubbed by one of his disciples pour out a divine influence.

Chunār was a municipality from 1868 to 1904, and during the ten years ending 1901 the income and expenditure averaged about Rs. 7,000. The income in 1903-4 was Rs. 13,000, chiefly derived from octroi (Rs. 8,000); and the expenditure was Rs. 12,000. Its constitution has now been changed to that of a 'notified area.' The town has little trade, but some inferior art pottery with debased European patterns is produced here. There is a *tahsīlī* school, and the municipality aids three schools attended by 246 pupils.

[Cunningham, *Archaeological Survey Reports*, vol. xi, p. 128.]

Chunderi.—Town in Gwalior State, Central India. *See* CHANDERĪ.

Chūniān Tahsīl.—South-western *tahsīl* of Lahore District, Punjab, lying between 30° 38′ and 31° 22′ N. and 73° 38′ and 74° 29′ E., with an area of 1,161 square miles, about half of which lies in the lowlands beneath the old bank of the Beās. It extends from the Sutlej right across the MĀNJHA, including a narrow strip of country beyond the Rāvi. The lowlands are irrigated by the Upper Sutlej Inundation Canals, and the Mānjha portion by the Bāri Doāb Canal. The population in 1901 was 257,281, compared with 230,197 in 1891. The head-quarters are at the town of CHŪNIĀN (population, 8,959); and it also contains the town of KHUDIĀN (3,401) and 430 villages. The land revenue and cesses amounted in 1903-4 to Rs. 3,25,000.

Chūniān Town.—Head-quarters of the *tahsīl* of the same name in Lahore District, Punjab, situated in 30° 58′ N. and 74° 0′ E., 8 miles from Chānga Mānga on the North-Western Railway. Population (1901), 8,959. The town stands on the high bank of the old bed of the Beās. It is the local centre through which the grain and cotton of the *tahsīl* pass to the railway. The municipality was created in 1867. The income during the ten years ending 1902-3 averaged Rs. 15,200, and the expenditure Rs. 16,300. The income for 1903-4 was Rs. 15,600, derived mainly from octroi; and the expenditure was Rs. 21,300. Chūniān has little trade, and the only industry of any importance is cotton ginning. There are 8 ginning factories, 6 of which in 1904 gave employment to 259 persons. The town possesses an Anglo-vernacular middle school and a dispensary.

Chupra.—Subdivision and town in Sāran District, Bengal. *See* CHĀPRA.

Churni.—River of Bengal. *See* MĀTĀBHĀNGA.

Churu.—Head-quarters of the *tahsīl* of the same name in the Reni *nizāmat* of the State of Bīkaner, Rājputāna, situated in 28° 18′ N. and 74° 59′ E., about 100 miles east of Bīkaner city, and close to the Shekhāwati frontier. The town is said to have been founded by and named after a Jāt called Chuhru, about 1620. Population (1901), 15,657. Churu is the home of many wealthy bankers, and contains some fine houses, wells, and *chhatris* (cenotaphs). The fort is said to have been built in 1739. The town possesses a combined post and telegraph office, a vernacular school attended by 76 boys, and an excellent hospital. The latter was the gift of a munificent citizen named Bhagwān Dās, and contains accommodation for 15 in-patients.

The town and fort of Churu, with about 80 villages in the neighbourhood, were formerly held by an influential Thākur, who was constantly contending with the Darbār. In 1813 the Thākur was besieged in his fort, and, being reduced to great straits, is said to have swallowed a diamond and died. Churu fell into the hands of the Darbār, but was shortly after recovered by the Thākur's successor with the help of Amīr Khān. In 1818 the Darbār, assisted by a British force, finally took possession, and the Thākurs of Churu now hold only five villages.

Chutiā.—Village in the head-quarters subdivision of Rānchī District, Bengal, situated in 23° 21′ N. and 85° 21′ E., 2 miles east of Rānchī town. Population (1901), 888. Chutiā was at one time the seat of the Nāgbansi Rājās, and this circumstance gave to their territory the designation of Chotā (a corruption of Chutiā) Nāgpur.

Chutiā Nāgpur.—Division and group of Native States in Bengal. *See* CHOTĀ NĀGPUR.

Chutturpore.—Name of State and town in Central India. *See* CHHATARPUR.

Circārs, Northern (*Sarkār* = a division of land).—A name applied to the five northern Districts of the Madras Presidency—Ganjām, Vizagapatam, Godāvari, Kistna, and Guntūr. It dates from the Musalmān occupation of this part of the country. There were then five Circārs: namely, Guntūr, Kondapalli, Ellore, Rājahmundry, and Chicacole. Chicacole included the present Ganjām and Vizagapatam Districts; Rājahmundry extended to Cocanāda; and Kondapalli came as far south as the Kistna river. The chief town of the five Circārs was Masulipatam.

In 1750 Muzaffar Jang, on becoming Sūbahdār of the Deccan by the help of the French, ceded to them Masulipatam, with the adjacent country. In 1753 his successor, Salābat Jang, extended the grant to

the whole of the Northern Circārs. M. Bussy, who was appointed to the government of the new tract, united the whole, though not without great trouble in Chicacole, Bobbili, and other places, under the titular chiefship of Viziarāma Rāz, Rājā of Vizianagram. He was succeeded by Ananda Rāz, who, after making offers in vain to the Madras Government (then embarrassed by the French besieging their capital), surrendered the Circārs to the English in Bengal. Lord Clive at once sent an army southwards, which, after defeating the French, stormed Masulipatam. A treaty was concluded with Salābat Jang, by which all the territory dependent on Masulipatam, about 80 miles in length and 20 in breadth, was ceded to the English. In 1761 Nizām Alī supplanted Salābat Jang; and in the following year four of the Circārs were offered by him to the East India Company on condition of affording military aid. The offer was refused; but in 1765 the Company obtained a grant of all the five Circārs from the emperor, Shāh Alam. To secure possession of them the fort of Kondapalli was seized, and a treaty of alliance signed with Nizām Alī at Hyderābād, November 12, 1766. By this treaty the Company, in consideration of the grant of the Circārs, engaged to maintain troops at an annual cost of £90,000 for the Nizām's assistance whenever required. Guntūr, being a personal estate of the Nizām's brother, Basālat Jang, was, as a matter of courtesy, excepted during his lifetime. Two years later another treaty was signed (on March 1, 1768), in which the Nizām acknowledged the validity of Shāh Alām's grant and resigned the Circārs (Guntūr again excepted) to the Company, receiving, as a mark of friendship, £50,000 per annum. In 1769 the Circārs were taken under direct management; and in 1778 Guntūr was also rented, by special treaty, from Basālat Jang for his lifetime. The Nizām strongly objected to this lease and the Madras Government eventually cancelled it. Basālat Jang died in 1782; but though Guntūr should then have been at once handed over, it was not until 1788 that it came under British administration. In 1823 the claims of the Nizām over the Northern Circārs were determined by a money payment from the Company of 116½ lakhs, and the whole thus became a British possession.

Cis-Sutlej States.— A group of States in the Punjab, lying in the tract of country bounded by the Sutlej on the west and north, the Siwāliks on the north east, the Jumna on the east, and the old Delhi territory on the south. In 1809 the treaty between the British Government and Mahārājā Ranjīt Singh of Lahore set a limit to the encroachments of the Mahārājā to the east and south of the Sutlej, and the Cis-Sutlej States were formally taken under British protection. These States were mostly held by Sikh chiefs, of whom the most prominent was the Rājā of Patiāla with a revenue of a quarter of a million sterling; and by bands of Sikh horsemen, whose individual

shares in some cases did not exceed the twentieth part of a single village. Many of them were of recent origin, and had been founded by Sikh warriors from beyond the Sutlej after the overthrow of the Afghān governor at Sirhind by the united forces of the Sikhs on both sides of the river in 1763. For some time previous to the treaty of 1809 Ranjīt Singh had aimed at establishing his supremacy over the cis-Sutlej territory. Several of the most prominent of the chiefs had been tributaries of the Marāthā power, and it was as the successor of the Marāthās that the British Government claimed the protectorate. The protected chiefs were allowed full sovereignty within their respective territories, but were required to assist the British with all their forces in repelling any invasion of the country. The British Government confined its interference with the States to the settlement of quarrels, and the determination of disputes as to succession, but reserved to itself, as the price of its protection, the right of escheat in case of failure of heirs. Political control over the States was until 1840 exercised through the British representative at Delhi and his assistants, who were also responsible for the administration of the territories which lapsed from time to time in default of heirs. In 1840 a Governor-General's Agent for the North-West Frontier was appointed with his head-quarters at Ambāla, and two years later the administration of the lapsed territories was transferred to him.

In the first Sikh War (1845–6) the great majority of the States failed to act up to their obligations. The Lahore army was largely recruited in their territories, and their sympathies, as a rule, were with the enemies of their protectors. As a consequence, at the end of 1846, important modifications were made in the relations between the defaulting States and the paramount power. The most flagrant offenders were punished by confiscation, and the remainder were deprived of their police jurisdiction, and of the right to levy customs and transit duties, while the obligation to furnish troops was commuted for a money payment. Nine chiefs only—those of Patiāla, Nābha, Jind, Māler Kotla, Farīdkot, Kalsia, Raikot, Diālgarh, and Mamdot—were exempted from this arrangement, and allowed to retain full powers.

These reforms added largely to the territory under the direct control of the British Government. The head-quarters of the Agent had been transferred to Lahore, and a Commissioner of the Cis-Sutlej States was appointed, subordinate to him. It was speedily found that, without police jurisdiction, the position of the States was an impossible one; and in 1849, after the conquest of the Punjab, the British Government assumed complete control throughout their territories, which were shortly afterwards brought under settlement, and the revenues assessed in cash. The position of the chiefs, and of the representatives of the old communities of horsemen (known as *pattīdārs*), who were thus

deprived of their former powers, became that of ordinary *jāgīrdārs*; and the right of succession to the *jāgīrs* is confined to the descendants in the male line of the persons actually in possession in 1809, the date of the declaration of the British protectorate. Of the States which were allowed to retain powers in 1846, Diālgarh lapsed in 1852 and Raikot in 1854, while Mamdot was annexed in 1855 in consequence of the misconduct of the Nawāb. The defunct States are now incorporated in the Districts of Ambāla, Karnāl, Ludhiāna, Ferozepore, and Hissār.

Closepet.—Head-quarters of the sub-*tāluk* of the same name in the Channapatna *tāluk* of Bangalore District, Mysore, situated in 12° 43′ N. and 77° 17′ E., on the Arkāvati, 28 miles by rail from Bangalore city. Population (1901), 6,099. The town was founded in 1800, being named after Sir Barry Close, the Resident, and became the head-quarters of the Bārgīr or irregular horse at that time. The Musalmāns of the place are largely engaged in the rearing of silkworms and reeling of silk. The municipality dates from 1870. The receipts and expenditure during the ten years ending 1901 averaged Rs. 3,000. In 1903–4 they were Rs. 3,800.

Cocanāda Subdivision.—Subdivision of Godāvari District, Madras, consisting of the *tāluk* of COCANĀDA and the *zamīndāri tahsīls* of TUNI and PITHĀPURAM.

Cocanāda Tāluk.—Coast *tāluk* in Godāvari District, Madras, lying between 16° 43′ and 17° 6′ N. and 82° 8′ and 82° 21′ E., with an area of 294 square miles. The population in 1901 was 213,758, compared with 183,505 in 1891. It contains two towns, COCANĀDA (population, 48,096), the District and *tāluk* head-quarters, and SAMALKOT (16,015); and 99 villages. The demand on account of land revenue and cesses in 1903–4 amounted to Rs. 5,45,000. CORINGA and INJARAM, well-known seaports in the days of the early European settlements, are situated in this *tāluk*; and Tallarevu, near Coringa, is the only place in the District where ship-building is now carried on. The principal crop is rice, which is irrigated by canals from the Godāvari river.

Cocanāda Town (*Kākināda*).—Town and seaport in the *tāluk* of the same name, Godāvari District, Madras, situated in 16° 57′ N. and 82° 14′ E., at the head of Cocanāda Bay, which is formed by the shoals at the mouth of the eastern branch of the Godāvari river. A branch 10 miles long connects the port with the main line of the East Coast Railway at Sāmalkot junction (391 miles from Madras). The population in 1901 was 48,096, of whom 44,787 were Hindus, 2,281 Muhammadans, and 1,022 Christians.

Cocanāda is of little historical importance. Jagannāthapuram, one of its suburbs, was however very early chosen by the Dutch as the site

of a factory. It was finally ceded to the British in 1825. After the capture of Masulipatam by Colonel Forde in 1759, the French twice landed a small force at Cocanāda, but were easily repulsed. With the silting up of Coringa Bay Cocanāda took the place of CORINGA as a port, and rose into importance during the American Civil War as a place of shipment for the cotton pressed at GUNTŪR.

The town is situated on a sandy plain, little above sea-level. Two canals from Dowlaishweram, one running through Sāmalkot and the other through the Rāmachandrapuram *tāluk*, fall into the tidal creek on which it stands and connect it with the waterways of the District. It is the head-quarters of the District administration, though some of the staff are stationed at RĀJAHMUNDRY, and one of the two District Forest officers at Kūnavaram. It is also the head-quarters of a company of the East Coast Rifle Volunteers. The Canadian Baptist Mission have their principal establishment here, and there is a Roman Catholic church and convent.

Cocanāda was constituted a municipality in 1866. The municipal receipts during the ten years ending 1902–3 averaged Rs. 91,000, and the expenditure (including the water-works) Rs. 1,01,000. The income in 1903–4 was Rs. 1,14,000, the principal sources being the taxes on houses and lands (Rs. 27,500), and tolls (Rs. 13,000). The expenditure was Rs. 1,39,000, the chief items being water-works (Rs. 57,000), conservancy (Rs. 19,400), and roads and buildings (Rs. 20,500). There are two hospitals, one, the Victoria Memorial Hospital, which was opened in 1903, being for women. The water-works, completed in 1903 at a cost of 4¼ lakhs, are designed to give a supply of 10 gallons per head per day to a population of 40,000. The water is obtained from the Sāmalkot canal.

Cocanāda is the chief port on the Coromandel coast north of Madras; but since the construction of the railway, and also on account of the silting up of the bay, it has much declined. Vessels calling here anchor 4¾ miles from the entrance to the harbour off the Vakalapūdi lighthouse in 5 fathoms at low water. In 1903-4, 265 vessels with a tonnage of 534,545 entered the port and 265 also cleared from it. Of the latter, 38 with a tonnage of 61,611 cleared for foreign ports. The value of the foreign exports was about 84 lakhs, and of the imports 19 lakhs. The coasting trade was valued at about 103 lakhs. The chief exports are cotton, shipped to the United Kingdom, France, and Belgium; oilseeds, chiefly to France and the United Kingdom; and rice, to Ceylon and Mauritius. Tobacco is sent in large quantities to Rangoon, where it is made up into cheroots. *Ghī*, pulses, and castor and gingelly oils are also exported. The principal imports are cotton piece-goods and twist and yarn, which come coastwise from Bombay, gunny-bags from Bengal, rice from Burma, and kerosene oil from

America. Cocanāda possesses a Chamber of Commerce and a Port Conservancy Board. The port dues in 1903-4 amounted to Rs. 37,000, and landing and shipping dues to Rs. 20,000. During the year 1903, 23,400 passengers embarked at the port, all for Burma.

A private salt factory is worked at Cocanāda, and important Government salt-pans are situated a few miles off at Penugudūru. A large rice-husking mill has been opened, and several small husking and oil factories are at work. There are also an iron foundry and some small cheroot-making firms. But the principal business of the place is the shipping trade.

The chief educational institution in Cocanāda is the Pithāpuram Rājā's College, founded in 1852, and endowed in 1865 with Rs. 25,000 by the Rājā of that estate. It was raised to a second-grade college in 1884, and has an attendance of 490, of whom 54 are in the college classes. The Timpany Memorial school, founded in 1883 for English-speaking children, and under the management of the Canadian Baptist Mission, has an attendance of 40.

Cochin State (*Kochchi*).—Native State in political relations with the Government of Madras, called after the town of the same name, formerly its capital but now a British possession. It lies between 9° 48′ and 10° 49′ N. and 76° and 76° 55′ E., and has an area of 1,361½ square miles. The State is singularly diversified in its configuration and physical aspects. It consists of two disconnected parts, the larger of which is bounded on the north by the Malabar District of Madras, on the east by Malabar and Travancore State, on the south by Travancore, and on the west by Malabar and the Arabian Sea. The smaller part, called Chittūr, is situated to the north-east, and is entirely surrounded by the Madras Districts of Malabar and Coimbatore. There are also a few small isolated tracts encircled by Travancore.

Physical aspects.

The State is divided into three well-defined parts—the hills, the plains, and the seaboard. The hilly or eastern portion, which covers nearly half its total extent, is formed by a section of the WESTERN GHATS and is broken by long spurs, extensive ravines, dense forests, and tangled jungles, rising terrace after terrace to an elevation of 5,000 feet above the sea. It is covered with magnificent forests of teak and other valuable trees, and exhibits everywhere a splendid luxuriance of foliage and flowers. Stretching westward, in gentler slopes and gradually widening valleys, but broken here and there by isolated low hills, the plains succeed the forest-clad uplands. Intersected by numerous rivers and streams, dotted everywhere with homesteads or farms, and closely cultivated wherever possible, these plains stretch in a succession of gentle undulations towards a line of backwaters on the coast. Between

the backwaters and the sea is a long and narrow stretch of sand, densely covered with luxuriant coco-nut palms, and in some parts, where there are natural or artificial embankments, with a wide extent of rice-fields. It is low and generally swampy, and is in several parts liable to be flooded during the monsoon inundations.

The chief rivers are the Alwaye, the Chālakudi, the Kurumāli or Karuvannūr, the Ponnāni, and the Anaimalai. The Alwaye is really a Travancore river, but runs through Cochin for a few miles; and along this part of its course there are several neat bungalows on its banks, for the use of the members of the ruling family and the chief officers of the State. The Chālakudi rises in the Kodasseri forests and, after a tortuous course of nearly 70 miles, empties itself into the backwater a few miles from Crānganūr. The Kurumāli, which is known as the Karuvannūr after its junction with the Manali, drains the Paravattāni and Pālapilli forests. The Ponnāni receives numerous streams rising from the Cochin forests, and forms for several miles the boundary between Malabar and Cochin. The Anaimalai or Chittūr river, in its course through Coimbatore and Malabar, meanders along 15 miles of Cochin territory in a broad bed of rock and sand.

One of the most striking physical features of the country is the continuous chain of lagoons or backwaters already mentioned, which run parallel to the sea and receive the drainage of the numerous streams descending from the Western Ghāts. They are very irregular in form, varying in breadth from 4 miles to a few dozen yards, and branch out into a number of intricate and shallow channels, sometimes containing low alluvial islands. They communicate with the sea at three points—Cochin, Crānganūr, and Chetwai. Though they are shallow in most places, navigation along them is at all times possible for flat-bottomed passenger and cargo boats. There are also two extensive fresh-water lakes, which are connected with each other, the ENAMĀKKAL and the Manakkodi. A part of the former lies within Malabar District. These lakes open into the backwaters at Enamākkal and Chirakkal, and embankments are constructed to prevent the ingress of salt water from these during the hot season, when the beds of the lakes are sown with rice. The area thus annually cultivated exceeds 7,000 acres.

The prevailing geological formation of the eastern part of the State is gneiss, which decomposes into a soil eminently suited, in combination with the heavy rainfall, to support a luxuriant forest growth. Proceeding westwards, the formation merges into a laterite underlain by gneiss, and becomes sandy on the seaboard.

The flora of the hilly part of the State resembles that of the rest of the Western Ghāts, consisting chiefly of plants that love a warm and moist climate. The principal trees are referred to under Forests below.

Coffee and cardamoms are grown on the NELLIAMPATHIS. The more prominent growth of the laterite plains includes numerous jack- and mango-trees, areca palms, and various species of plantain. The coconut palm is the chief tree on the seaboard.

The forests of Cochin contain all the larger animals of Southern India. Elephants and bison (*gaur*) are common in the Parambikolam range and to a less extent in the Kodasseri range. Nīlgiri ibex are occasionally seen in the higher ranges of the Nelliampathis. Tigers, bears, leopards, hyenas, *sāmbar* and other kinds of deer are met with in all the forests. The hunting leopard and the wolf are said to be found in some of the jungles. Monkeys and birds of species uncommon away from the west coast are found both in the hills and on the plains. The rivers and backwaters contain otters and crocodiles.

The climate, though damp and enervating, is not unhealthy. It is most moist in the southern *tāluks*, which are situated close to the sea and the backwaters, but less so in the north. Of all parts of the State, the Chittūr *tāluk*, situated within the Pālghāt Gap, has the driest and most bracing climate. The lower hills and parts of Chittūr are feverish, especially during the dry months. Elephantiasis is very common along the coast. The temperature is fairly uniform throughout the year; the highest figure recorded in 1903 was 96° in April, and the lowest 69° in December, the mean being 82°.

The rainfall is very heavy, and is fairly regular and uniform in quantity. Like the west coast generally, Cochin gets the benefit of both the monsoons in full. In Chittūr, however, owing to its situation within the gap, the supply is less copious, and this accounts for its drier climate. The annual rainfall, based on the statistics for the twelve years ending 1903, averaged 136 inches at Trichūr, 108 at Ernākulam, and 66 at Tattamangalam. The State has not for several generations suffered from any serious natural calamities, such as destructive floods or earthquakes, and famine is practically unknown.

History.

Till about the middle of the ninth century A.D. Cochin formed part of the kingdom of Kerala. About that time, Cheramān Perumāl, the last ruler, according to tradition, of the vast country stretching from Gokarn in the north to Cape Comorin in the south, resigned the kingdom into the hands of his relatives and friends, embraced Islām, and went on a pilgrimage to Arabia, where his tomb is reported to have been found. The present Rājās of Cochin claim to hold their territory in direct descent from him. Nothing is known of the subsequent history of the State till the advent of the Portuguese, except that there was constant strife between its rulers and the neighbouring chiefs, especially the Zamorin of Calicut. In 1502 the Portuguese were allowed to settle in the town of Cochin, and in the following year they built a fort and established commercial relations

with the surrounding country. In the wars with the Zamorin, they rendered effective aid to the Rājās of Cochin. In 1599 Menezes, the Roman Catholic Archbishop of Goa, convened a synod at Udayamperūr (the Diamper of history), a village about 12 miles to the south-east of Cochin, at which the tenets of the Syrian Christians, then a large body, were declared heretical, and all their service-books were corrected in order to rid them of Nestorian phrases. In 1663 the Dutch ousted the Portuguese from the town of Cochin. They also obtained possession of several villages on the coast by friendly negotiation with the Rājā, but otherwise left the latter to reign supreme. About a century later, in 1759, when the Dutch power began to decline, the Zamorin of Calicut invaded the State, but was expelled with the aid of the Rājā of Travancore, who obtained a portion of Cochin as a reward for this service. In 1776 Haidar Alī, the Muhammadan usurper of Mysore, invaded the State, and the Rājā agreed to acknowledge his suzerainty and pay tribute. The State remained tributary to him and to his son and successor Tipū till 1791, when the Rājā entered into a treaty with the British by which he became their vassal and agreed to pay a tribute of a lakh of rupees. In 1808 Pāliyath Achan, the hereditary chief minister of the State, entered into a conspiracy with the minister of Travancore to assassinate the Resident, and raised an insurrection against the British power without the knowledge of the Rājā. This was easily suppressed; and a fresh treaty was concluded which imposed an enhanced tribute of about 2¾ lakhs. The Rājā also engaged to hold no correspondence with any foreign State and to admit no Europeans into his service without the sanction of the British Government, who might dismantle or garrison any fortresses in his dominions. On the other hand, the British undertook to defend the territories of the Rājā against all enemies. In 1818 the tribute was reduced to 2 lakhs, which has since remained unaltered. The subsequent history of the State is one of internal reforms and increasing prosperity. In 1862 the Rājā received from Earl Canning, then Governor-General of India, a *sanad* granting him the right of adoption on failure of natural heirs. As in the adjoining State of Travancore, succession is through the female line, according to the prevalent usage on the west coast. His Highness Sir Rāma Varma, the present Rājā, succeeded in 1895. He was created K.C.S.I. in 1897 and G.C.S.I. in 1903. He is entitled to a salute of 17 guns.

Prehistoric dolmens or burial cairns are found here and there, especially in the upland tracts, as also are rock-cut caves, the chief of which are those of Tiruvilwāmala and Trikūr. The remains of the Dutch fort at Crānganūr, of the lines erected by Travancore and Cochin to stop the advance of Tipū, and of the fort round the town of Trichūr still exist. There are several old temples, of which the most noteworthy

are the Vadakunnāthan shrine in Trichūr and the Tiruvanchikulam temple near Crānganūr. The Jewish synagogues at MATTĀNCHERI, with a clock-tower nearly 300 years old, the copperplate charters of the Jews, and some old Christian churches are of archaeological interest. But few old inscriptions have been found, and they possess little historical value.

Population. There are 659 towns and villages in the State. The population was 601,114 in 1875, 600,278 in 1881, 722,906 in 1891, and 812,025 in 1901. The decline in 1881 was due merely to indifferent enumeration. The State is divided into the seven *tāluks* of Kanayannūr, Cochin, Crānganūr, Mukundapuram, Trichūr, Talapilli, and Chittūr, the respective head-quarters of which are ERNĀKULAM (the capital of the State), MATTĀNCHERI, Crānganūr, IRINJĀLAKUDA, TRICHŪR, Vadakkāncheri, and CHITTŪR. Other noteworthy towns are KUNNAMKULAM and TATTAMANGALAM.

Statistics of population, according to the Census of 1901, are appended:—

Tāluk	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Kanayannūr	81	1	83	114,628	1,419	+ 12·3	19,935
Cochin	63	1	61	120,456	1,919	+ 14·1	18,425
Crānganūr	19	...	7	29,140	1,554	+ 4·2	3,633
Mukundapuram	418	1	139	161,833	387	+ 11·1	16,108
Trichūr	225	1	174	145,104	645	+ 12·5	23,384
Talapilli	271	1	163	151,315	588	+ 13·0	18,600
Chittūr	285	2	25	89,549	314	+ 13·6	8,894
Total	1,362	7	652	812,025	6,826	+ 12·3	108,979

Nearly 69 per cent. of the people are Hindus or Animists, 7 per cent. Musalmāns, and more than 24 per cent. Christians. Jews number 1,137. The population increased at the rate of 12·3 per cent. during the last decade, and the density now is as high as 596 persons per square mile. Malayālam is the language of 88 per cent. of the population and Tamil of nearly 7 per cent. In the Chittūr *tāluk*, which adjoins Coimbatore, as many as 36 per cent. of the people speak Tamil.

Though the most numerous caste in the State is the toddy-drawing Iluvans or Tīyans, who number 184,504, the most characteristic and important caste is the Nāyars, who number 111,837. They formed the militia of the country in olden times, but are now chiefly agriculturists and Government servants. They follow the Marumakkattāyam law of inheritance, i.e. succession through the sister's children, and among

them marriage is not a legal but only a social compact dissolvable at the will of either party. Among other castes who follow the same law are the Kshattriyas or the ruling class (892), the Ambalavāsis or temple-servants (7,483), and low-caste Sūdras, such as barbers, washermen, and weavers (7,521). The Brāhmans of this coast, called Nambūdris (6,407), are a very conservative people who retain, more than any other class of Brāhmans, the old-world piety and purity of the priestly class. Among them the eldest sons alone marry in their own class, the other sons forming alliances with Nāyar and Ambalavāsi women. Other castes include the artisans (29,809), the Vālans (7,564), and Arayans (4,081), who are fishermen and boatmen; the Velans (8,243), who are washermen to low castes; and the agricultural labourer Cherumans (59,840), Paraiyans (8,841), Vettuvans (6,349), and Kanakans (5,917). The hill tribes include 215 Nāyādis, 2,631 Malayans, 439 Ulladans, and 310 Kādans. The chief occupation of the people is agriculture, and as many as 49 per cent. of them (excluding coco-nut growers) live by the land. The next most considerable occupations are those connected with the coco-nut, such as oil-pressing and rope- and mat-making, and with the backwaters, such as catching and curing fish, rowing boats, and so on, by which 16·6 per cent. of the people are supported.

The economic condition of the people has improved considerably during the last thirty years. Wages of unskilled labourers have risen during this period from 2½ to 4 annas in towns and from 2 to 3 annas in villages, while those of skilled labourers have risen from 4½ to 8 annas in towns and from 3½ to 6 annas in villages. The prices of food-stuffs have also risen, however. The price of husked rice, the chief food-grain, was Rs. 2¾ per maund in the early seventies, while it is now nearly Rs. 4. The poorest class of agricultural labourers, the former predial serfs, still receive their wages in kind at the old rates; but on the whole the people, especially the urban population, are now much better off than were their fathers thirty years ago. They live in better houses, are better clothed, and enjoy more comforts in everyday life.

Births and deaths have been registered since 1896. The statistics are collected by the village officers and submitted at the end of each month to the *tāluk* office, where they are consolidated. As there is no law in the State which renders it obligatory on the part of householders to report the births and deaths occurring in their families, the statistics cannot be considered exhaustive or reliable. The number of births and deaths registered in 1903 was only 8·5 and 9·6 per 1,000 respectively of the population.

Of the 198,239 Christians in the State (1901), 196,690 are natives. Of these, 77,818 are Roman Catholics under the Archbishop of Verapoli (Varapuzha) and the Bishops of Cochin and Coimbatore, 90,142 Romo-Syrians under the Bishops of Trichūr and Ernākulam, 8,884

Chaldean Syrians under the Patriarch of Babylon, 17,408 Jacobite Syrians under a Metropolitan owing allegiance to the Patriarch of Antioch, 514 St. Thomas or Reformed Syrians under the supreme control of a local Metropolitan, and 1,924 Protestants of various denominations.

The history of the Catholic and Syrian Churches in Cochin would fill many pages and is beyond the scope of the present article. There were Christians on the west coast in Marco Polo's time, in the thirteenth century. The Protestant missions started work in Cochin but recently. The Church Missionary Society began operations first at Trichūr in 1842 and at Kunnamkulam in 1854, the Church of England Zanāna Mission at Trichūr in 1881, and the Leipzig Lutheran Mission at Chittūr in 1882.

Agriculture.

At the foot of the Ghāts and in the Chittūr *tāluk*, the chief underlying rock is gneiss of a micaceous or hornblendic variety, loam derived from which is chemically very favourable for cultivation. In the middle zone of the State, the soil is a lateritic clayey loam, the laterite being derived from a quartzose variety of the gneiss. In the tracts near the backwaters and the sea, the earth consists of recent deposits of sand and mud, due mostly to river alluvium. These two latter varieties are of moderate fertility.

Cultivation is almost entirely rain-fed, the monsoon rains being both regular and abundant. It derives material help, however, in the Chittūr *tāluk* from the irrigation works on the Anaimalai river, and elsewhere from temporary dams across smaller streams. Rice, of which some 50 varieties are locally distinguished, forms the staple of cultivation. Two crops of this are generally raised on all the low ground and one on land on a higher level, while a third crop is raised on some of the best land fed by irrigation from wells or minor streams temporarily dammed. The 'dry crops' are the usual cereals and pulses, plantains and other vegetables, betel-leaf and areca-nut, tapioca, sugar-cane, ginger, and pepper. These are neither extensive nor important. Next to rice, coco-nut growing engages the chief attention of the cultivators. The tree is largely raised in the sandy tracts, and its products form the chief exports of the State. Coffee is grown on the Nelliampathis, the area under it being 3,182 acres. The total extent under 'wet' cultivation is 137,000 acres. Statistics of the area of 'dry' lands are not available. No noteworthy improvements have been made in agricultural practice in recent years.

There is no indigenous breed of cattle or sheep. Milch cows are imported from Coimbatore, and draught bullocks from Mysore. Their degenerate progeny and crosses, supplemented by buffaloes, which seem to be better adapted to the climate, supply the plough cattle.

Sheep of the *semmeri* breed are imported from Coimbatore, and a puny variety of goats is bred here and there.

Permanent irrigation works exist only in the Chittūr *tāluk*, where two anicuts have been constructed by the State and four by the ryots. In the other *tāluks*, small areas are irrigated by temporary dams put up annually across the minor streams. There are 169 such dams or *chiras*, of which 48 are made by the ryots. The total area under irrigation is 17,000 acres, or 12 per cent. of the 'wet' area. Of this, the State canals supply 5,000 acres and the State dams 6,200, while the rest is watered by private works, chiefly canals. A sum of Rs. 17,000 is annually collected as irrigation cess.

Forests.

The forests of Cochin form one of its most valuable assets. As they have not yet been fully surveyed and demarcated, their exact extent is unknown. The approximate area is 605 square miles, or nearly half of the State. Till recently, the importance of forest administration on scientific principles was not sufficiently recognized, and the reckless destruction of the forests by timber-cutters, cultivators, and firewood-gatherers went on to a great extent unchecked. But a better system of administration was inaugurated about 1898, with the result that, while many parts of the forests are now enjoying a long-needed rest, the revenue from this source is increasing enormously.

The department is under the control of a Conservator. The whole forest area is divided into two charges, called the northern and southern divisions, each under an Assistant Conservator. The former is composed of the Machād and Chittūr ranges, and the latter of the Kodasseri and Parambikolam ranges. The major portion of the forests in the northern division were overworked in former years; and these parts are now practically left alone, except for the removal of badly grown and stunted teak-trees, the extraction of fuel under the system of coppice with standard fellings, and selection fellings in the parts which have not been previously overworked. Teak, ebony (*Diospyros Ebenum*), and black-wood (*Dalbergia latifolia*) grow in all these ranges, but they are neither abundant nor of superior quality. Among exploitable trees that grow fairly in these forests are *irūl* (*Xylia dolabriformis*), *aini* (*Artocarpus hirsuta*), *vedankorana* (*Bignonia xylocarpa*), *vengai* (*Pterocarpus Marsupium*), and *pongo* (*Calophyllum bracteatum*). It is, however, in the southern division that teak and other valuable trees flourish generously and abundantly. The Parambikolam range, including the Nelliampathis, and the Kodasseri range, containing the Adarapalli forests, are densely covered with magnificent timber of marketable value. Several teak-trees have recently been felled in the former, of which the largest (but by no means the largest in the range) contained more than 400 cubic feet of wood. They are practically virgin forests, covering an area of about 300 square miles, and have never before

been worked for want of a suitable outlet. From the Adarapalli forests timber can be transported through Travancore with comparative facility, but no exit is possible through Cochin territory except at prohibitive cost. From the Parambikolam range an outlet has, after careful investigation, been made in the shape of a tramway and timber slide, at a cost of 10 lakhs. The tramway is in three sections. The first section covers a distance of 20½ miles in the higher range, and is followed by a self-acting inclined tramway 5,000 feet long. Then comes the second section, 4½ miles in length, at the end of which timber is sent down by means of a slide 7,000 feet long, whence it is taken over the third section, 19 miles in length, to the Chālakudi railway-station.

Among the minor forest products are cardamoms, which grow in several parts of Kodasseri and Parambikolam, lemon-grass, honey, beeswax, &c., which are found in all the forests. Elephants are caught in pits: 28 were so caught in the three years ending 1904. The only attempt at artificial reproduction as yet made is the teak plantation at Pālapilli in the Kodasseri range, which is about 800 acres in extent. The people are allowed to remove from the forests, free of all charge, head-loads of fuel, bamboos, and thorns for fencing, leaves for manure, timber for agricultural implements, fodder, and thatching-grass. The free grazing of cattle, sheep, and goats is also allowed. The receipts from the forests in 1903–4 amounted to Rs. 5,84,000, compared with only Rs. 58,100 in 1880–1.

The only minerals worked in the State are granite, laterite, and limestone. The first two are quarried, chiefly for building purposes, in all the *tāluks* but Cochin, Crānganūr, and Chittūr. Limestone is extracted in Chittūr in small quantities. There are traces of iron and mica in some parts, but they have not yet been exploited.

Trade and communications.

Cotton-weaving is carried on to some extent in the Chittūr and Talapilli *tāluks*. Laced and other cloths of fine texture are made out of English cotton twist, and are displacing the Tinnevelly cloths so much affected by the people of this coast. Grass mats of excellent colouring and texture, made at Vadakkāncheri, are in much demand. Coir (coco-nut fibre) matting and rugs of good quality are made at Ernākulam and Mattāncheri.

The most important factory industry is the extraction of coco-nut oil. Seven steam mills, all in the Cochin *tāluk* and owned by native capitalists, in which about 400 hands are employed daily, are engaged in this manufacture. The out-turn in 1903 was about 16,000 tons of oil, worth over 60 lakhs. Besides some concerns for the manufacture of ordinary pottery and pantiles, there are two tile factories at Trichūr and two in the Mukundapuram *tāluk*, where tiles and bricks of the

Mangalore pattern are made. A steam saw-mill is at work at VYPĪN and another near Shoranūr. There is also a hydraulic press at Mattāncheri for pressing coir yarn.

The chief exports are coco-nut oil, yarn, rope, fibre and matting made from coir, copra, areca-nut, ginger, pepper, fish and prawns; and the chief imports are rice, cotton piece-goods and twist, raw cotton, metals, hardware and cutlery, and sugar. No official statistics of trade are available; but figures for the value of the chief exports and imports through British Cochin, which are mainly the exports and imports of the Cochin State, show that the annual exports of coco-nut oil are worth 93 lakhs; of yarn, &c., made of coir, 50 lakhs; and of pepper, 9 lakhs; while the imports include grain valued at 38 lakhs, and raw and manufactured cotton valued at 11 lakhs.

A branch line of railway on the metre gauge was opened in June, 1902, from Shoranūr, on the south-west line of the Madras Railway, to Ernākulam, the capital of the State. The line, which is 65 miles long and cost nearly 70 lakhs of rupees, is owned by the State, but is worked by the Madras Railway Company.

The total length of metalled roads maintained in Cochin is 391 miles, and of unmetalled roads 56 miles. All the towns and important villages in the State, except those on the seaboard, are connected by good roads, which also meet all the metalled roads in Malabar and Travancore that touch the Cochin frontier. Before the introduction of the railway, the chief means of communication, especially for goods, was the backwaters, which still attract a considerable portion of the local traffic. The length of this line of communication from Trichūr to the southern end of the State is 60 miles, and the canals which branch out from it have an aggregate length of about 60 miles.

The State has a postal system or *anchal* of its own. There are in all 39 post offices, or one to every 35 square miles, besides 56 letter-boxes. Postage stamps of the values of 3 pies and of ½, 1, and 2 *puttans* (1 *puttan* = 10 pies), stamped envelopes of similar denominations, and post-cards and reply-cards of the values of 2 and 4 pies are manufactured by the State under the supervision of the Superintendent of Stamps and Stationery.

Famine.

The State has hitherto had the good fortune to enjoy immunity from famine. During the great famines of 1876–8 and 1897–8, there was considerable scarcity, but it was not so acute as to necessitate relief works, much less gratuitous relief.

Administration.

Cochin is divided for administrative purposes into two divisions, the northern and southern, the head-quarters of which are at Trichūr and Ernākulam. The administrative head of the division is the Peshkār, who is also the District Magistrate, and whose position corresponds to that of the Collector of a British

District. The northern division comprises the *tāluks* of Trichūr, Talapilli, and Chittūr, and the southern division those of Kanayannūr, Cochin, Crānganūr, and Mukundapuram, each of which is in charge of a *tahsīldār*, who is also a second-class magistrate. There are three stationary sub-magistrates—at Nemmāra, Kunnamkulam, and Adūr. The *tāluks* are further subdivided into forty-four *provertis* or *amsams*. The Dīwān is the chief minister and responsible head of the administration.

The principal sources of revenue and the amounts received from each in 1903–4 were: land revenue, 7 lakhs; salt, 5 lakhs; forests, 6 lakhs; judicial items, 3 lakhs; and excise, 2 lakhs. The chief items of expenditure were: forests, 5 lakhs; palace, 3½ lakhs; public works, 2½ lakhs; law and justice, 2½ lakhs; and the tribute to the British Government, 2 lakhs. Of the expenditure under 'palace,' a sum of Rs. 2,40,000 represents the fixed allowances to the Rājā and the members of his family. The balance is a fluctuating item, being the miscellaneous expenditure in connexion with the palaces. The total receipts amounted to 29 lakhs and the total expenditure to 28·9 lakhs, compared with 14·5 lakhs and 13·3 lakhs respectively in 1880–1. The receipts and expenditure of the Crānganūr *tāluk* are not included in these figures. That tract is a separate principality, under a chief who pays a tribute of Rs. 6,857 to Cochin. It is financially autonomous, but is in all other respects treated as an integral part of the State.

The only coins ever minted in the State were the single and double *puttans*, which were of the value of 10 and 20 pies respectively. The earliest coinage of these of which we have any record was that of 1783–4, when two lakhs of rupees' worth of them were made. *Puttans* to the value of Rs. 36,000, Rs. 62,000, Rs. 32,000, and Rs. 30,000 were coined in 1790, 1821, 1855, and 1897 respectively. Subsequently the coin began to depreciate in value, so much so that in 1900 the State felt constrained to withdraw all the *puttans* from circulation and abolish the coin as legal tender. The State has now no currency of its own, but all British Indian coins are current.

By the Interportal Convention of 1865, the State agreed to abolish the tobacco monopoly and the system of inland transit duties, to equalize the rates of customs duties at its seaports with those obtaining at the ports of British India, and to sell salt within its limits at the price ruling in the District of Malabar. In return for these concessions, the British Government guaranteed to the State a minimum customs and tobacco revenue of Rs. 1,10,500. The excise revenue is derived from the sale of the monopoly to manufacture and sell country spirits, and the revenue from opium and *gānja* from the sale of the monopoly to vend these drugs, which are obtained by the contractor from the Madras store

houses. Tobacco can be imported and sold by licence-holders, and the licence fees paid by them constitute the tobacco revenue.

Civil justice is administered by six Munsifs' courts, two District courts, and a Chief Court. The Munsifs try all suits of which the value does not exceed Rs. 1,000 and to which the State is not a party. The District courts hear appeals from the decisions of the Munsifs and try all suits to which the State is a party or of which the value exceeds Rs. 1,000. Appeals from their decisions are heard by the Chief Court, whose decision in civil cases is final. This tribunal consists of three Judges, of whom one is a European barrister. Criminal jurisdiction is exercised by the Chief Court, two Sessions courts, two District Magistrates with first-class powers, and ten second or third-class magistrates. The Chief Court is the highest appellate court, but sentences of death or of imprisonment for life are subject to confirmation by the Rājā. The Sessions courts have the same powers as the corresponding tribunals in British territory. The District Magistrates have power to pass sentences of imprisonment for one year and fines up to Rs. 500; the second-class magistrates, sentences of six months' imprisonment and fines up to Rs. 200; and the third-class magistrates, sentences of one month's imprisonment and fines up to Rs. 50.

European British subjects are within the jurisdiction of the civil courts of the State and, in cases of contempt, of the criminal courts as well. For the trial of other offences by them, the State appoints one or more European British subjects as special magistrates for the trial of Europeans, and the Government of India gazettes them as Justices of the Peace. They have power to sentence European British subjects to three months' imprisonment and a fine of Rs. 1,000. An appeal lies to the European Judge of the Chief Court. The Resident is a Justice of the Peace, with the powers of a District Magistrate and Sessions Judge over such subjects. An appeal from his decisions lies to the Madras High Court.

When the State finds it necessary to legislate on any subject, the law committee, a standing committee consisting of a president and seven members appointed for a period of three years, is requested to prepare and submit a draft bill. This, after undergoing such revision as is found necessary by the Dīwān, is submitted to the Government of Madras for approval through the British Resident. In some cases, however, bills are drafted without the intervention of the law committee. When the bill is approved by the Madras Government, it is submitted to the Rājā, on receiving whose assent it becomes law. All enactments are called Regulations. At present forty-five such Regulations are in force. They are framed on the lines of corresponding enactments in British India. In cases of emergency, the Rājā issues proclamations in his own name, which also have the force of law.

All land in Cochin was originally private property in fee-simple (*janmam*). No regular tax was levied, but non-Brāhman land-holders had to render military service when required. The ruler of the State derived his income from crown lands, customs, monopolies, &c. These crown lands, which are now the *janmam* of the State, increased in extent from time to time by escheat, confiscation, and purchase, so that they now comprise more than a third of the occupied area. A small assessment was imposed for the first time in 1762, probably to meet the increasing expenditure caused by wars with the neighbouring chiefs. Subsequently, there were several piecemeal surveys of particular areas or particular kinds of land, but the first general survey and settlement of 'dry' land were carried out in 1815 and of 'wet' land in 1821. The 'dry' land was again surveyed and settled in 1843 and 1862. A systematic survey of all land in the State is now in progress, and a scheme for its resettlement is under consideration.

The tenures and sub-tenures under which State and private *janmam* lands are held are multifarious, ranging from permanent leases at a nominal rent to tenancies-at-will. The assessments are made up of a variety of imposts and vary, on State land, from Rs. 14 to R. 1 for 'wet' land and from R. 0–12–0 to R. 0–6–10 for 'dry' land per acre. Separate taxes are collected on each jack, coco-nut, and areca-nut tree. About 11,000 acres of land are *inām*, or held on favourable tenure.

In Cochin no municipal councils or local boards have been established; but in all the towns, and in Tripunittura, Nemmāra, and the Nelliampathis, sanitary boards, financed by the State, look after local sanitation.

The Public Works department is under a Chief Engineer, assisted by two divisional and six subdivisional officers. The expenditure during the ten years ending 1904 averaged 4½ lakhs. Among the more important public buildings constructed or improved are some of the palaces at Tripunittura, the Darbār Hall, the Dīwān's office, the Chief Court and the College at Ernākulam, the public offices at Trichūr, and the Residencies at Ernākulam and Trichūr. The only important irrigation works in the State are those at Mulattura and Narni on the Anaimalai river.

The State maintains a small force, consisting of 309 infantry, 16 cavalry, and 4 guns. The British detachment stationed in Cochin after the treaty of 1809 was withdrawn in 1900.

The police force is under the control of a Superintendent, and consists of 504 constables working under 7 inspectors. There are 29 police stations in the State. The Ernākulam jail has accommodation for 200 prisoners. Nine subsidiary jails for short-term prisoners are maintained at the head-quarters of the sub-magistrates.

Cochin stands at the head of all the Districts and States in Southern

India, except Madras City, in the literacy of its population, of whom 13·4 per cent. (22·4 males and 4·5 females) are able to read and write. At the end of 1903–4 it contained 1,510 educational institutions with 48,079 pupils. Of these, 241 were public institutions, of which 58 were managed directly by the State, 127 were under private management but aided, and 2, though unaided, conformed to the rules of the department. They included 147 primary, 33 secondary, and 6 special schools, and one second-grade college at Ernākulam. Of the special schools, one is a training institution, three are Sanskrit schools, and the remaining two are elementary industrial schools. In some of the private schools, which number 1,800 and contain 27,529 pupils, only the Korān or the rudiments of Sanskrit or native singing are taught.

Of the boys and girls of school-going age, 57 and 22 per cent. respectively were receiving instruction, but only 8·1 per cent. of the boys and 0·94 per cent. of the girls under instruction had passed the primary stage. In point of primary education, Christians stand first and Musalmāns last, but in the matter of higher education Hindus take the lead. The total expenditure on education in 1903–4 was Rs. 99,000, of which Rs. 36,000 was derived from fees.

There are 10 hospitals and 3 dispensaries in the State, with accommodation for 244 in-patients. The total number of cases treated in 1903–4 was 185,000, of whom 3,700 were in-patients, and the number of operations performed was 7,700. The lady doctors attached to the hospitals at Mattāncheri and Trichūr treated 19,000 women and 13,000 children. The total expenditure on the department was Rs. 65,000.

In 1903–4 the number of persons successfully vaccinated was 19,000, or 24 per 1,000 of the population. Vaccination is not compulsory anywhere in the State.

[For further particulars of the State, see the *Census Reports* of 1891 and 1901.]

Cochin Tāluk.—Coast subdivision and *tāluk* in the south of Malabar District, Madras, situated in 9° 58′ N. and 76° 14′ E., with an area of 2 square miles. It contains one *amsam*, or parish, and is surrounded on all sides but the west by the Native State of Cochin. The population increased from 23,715 in 1891 to 25,859 in 1901. The land revenue demand in 1903–4 amounted to Rs. 20,000. The head-quarters are at the seaport of COCHIN (population, 19,274). The villages of ANJENGO and TANGASSERI were treated, for administrative purposes, as portions of the Cochin *tāluk* up to 1906, when they were formed into a new District of Anjengo under the control of the Resident in Travancore and Cochin.

Cochin Town.—Head-quarters of the subdivision and *tāluk* of British Cochin in Malabar District, Madras, situated in 9° 58′ N. and 76° 14′ E., on the coast within the limits of the Native State of Cochin. The

northern portion of the town contains several streets of picturesque Dutch houses. The Anglican church, a plain massive building, was formerly the principal chapel of the Franciscan monastery. The age of the present structure is unknown, but inscriptions on the tombstones formerly in the floor of the nave prove the existence of a church on the spot before 1546. The backwater forms a magnificent natural harbour several square miles in area, with a deep-water basin of 7 to 9 fathoms near the mouth, which is kept from silting up by the heavy scour of the tides. The bar is at a distance of about a mile from the shore, and carries a maximum of 18 feet of water and a minimum of 12 feet. It has frequently been proposed to make the harbour available for ocean-going vessels by deepening the bar and running out breakwaters, but the expense and difficulties of the undertaking have hitherto prevented anything being done. At present steamers anchor about 2 miles off the shore in 5½ to 6½ fathoms.

The tradition is that Cochin was originally a small town on the bank of a small river (*Kocchi*, 'little'), and that it was swept away in 1341 by violent floods, which changed the whole face of the neighbourhood, forming the present harbour and the island of VYPĪN. Tradition is supported by the fact that the term Pudiya Veppu ('new deposit') is used to denote an era beginning in 1341; and there is no doubt that violent changes of this nature have frequently taken place along the coast. The present situation, commanding the entrance to a backwater which taps an immense area of rich country, soon attracted settlers, and Cochin became the successful rival of the port of Crānganūr.

The history of the present town begins with the arrival of the Portuguese. In 1500 Cabral came to Cochin after his attack on CALICUT and met with a friendly reception from the Rājā, who is described as a reluctant vassal of the Zamorin. He returned to Portugal with a large cargo of pepper. In 1502 Vasco da Gama on his second voyage visited Cochin and founded a factory. The next year Albuquerque arrived just in time to assist the Cochin Rājā, who was besieged by the Zamorin in Vypīn. The Zamorin was driven off and Albuquerque was permitted to build the Cochin fort, which he called Manuel Kotta. It was the first European fort built in India. In 1504 Pacheco, who was left in charge of the fort, was besieged by the Zamorin, but managed with some difficulty to repel the attack. The next year Almeyda arrived as viceroy, and rebuilt and enlarged the fort; and the Portuguese settlement does not appear to have been further troubled by the Zamorin. It became the chief of their settlements till the capture of Goa. In 1530 St. Francis Xavier came to Cochin and made many converts; in 1557 the church of Santa Cruz was consecrated as the cathedral of the Bishop of Cochin; and in 1577 the

Society of Jesus published at Cochin the first book printed in India in native characters. The first Englishman to visit the town was Ralph Fitch, a traveller, who came by way of Bagdad and the Persian Gulf in 1585; but no English settlement was made till 1634, when the East India Company entered into a treaty which gave them free access to Portuguese ports. In the next year pepper was for the first time exported direct from the west coast to England. In 1663 the town and fort were captured by the Dutch, and the English retired to PONNĀNI. Under the Dutch the trade of Cochin increased considerably, and the customs are said to have amounted to Rs. 30,000 annually. The Dutch remodelled the town, building substantial European houses, quays, &c. They also converted the cathedral of Santa Cruz into a warehouse. Later on the fort was entirely rebuilt by Van Moens (1778). The cathedral, the fort, and many of the Dutch houses were subsequently blown up (1806) by the English. On the conquest of Holland by the French in 1795 the East India Company was ordered to take possession of all the Dutch colonies. The Dutch governor, Vanspall, refused to surrender Cochin; and it was therefore besieged and captured by Major Petrie, on October 20, 1795. The settlement was taken under English protection, but the Dutch were allowed to retain their laws and administration. The town was finally ceded to the Company under the Paris Convention of 1814.

Cochin is now the chief port of Malabar and the third in importance in the Madras Presidency. The value of its imports in 1903–4 was 82 lakhs, and of its exports 208 lakhs. During the last twenty years the trade of the port has trebled. The main exports are coco-nut oil and coir. Cochin monopolizes the trade of the Presidency in the former and possesses three-fourths of the trade in the latter. There is also an increasing export of tea from Travancore, its value in 1903–4 amounting to nearly 10 lakhs. Of the import trade more than half is in rice, from Burma and Bengal. The other chief articles of trade are pepper, timber, cotton twist and piece-goods, and kerosene oil. The population in 1901 was 19,274, of whom more than half were Christians, including a large Eurasian community. The income of the municipality, which was constituted in 1866, during the decade ending 1900 averaged Rs. 20,300 and the expenditure Rs. 19,500. In 1903–4 the corresponding figures were Rs. 22,600 and Rs. 21,700, the main source of income being the taxes on houses and land. The climate is very moist and hot, and elephantiasis is common owing to the bad water. A scheme is now under consideration for bringing a supply from the Alwaye river, about 20 miles distant.

Cocos.—Two islands in the Bay of Bengal, lying between 14° 4′ and 14° 10′ N. and in 93° 22′ E., 45 miles north-east of the Andaman Islands, with which they are geologically connected, and a short distance south of Table Island, on which there is a lighthouse. They

form part of the Hanthawaddy District of Lower Burma. Their area is small, the larger island being about 14 square miles in extent, and the smaller about 2½ miles long and a mile broad. They are flat, waterless, unpopulated, and covered with coco-nut palms and forest jungle. The Cocos have been leased by Government for the sake of their vegetable produce, and are visited from time to time by coco-nut gatherers.

Coimbatore District (*Koyamuttūr*).—An inland District in the south of the Madras Presidency, lying between 10° 15′ and 11° 18′ N. and 76° 39′ and 78° 14′ E., with an area of 7,860 square miles.

Physical aspects.

West and south it is bounded by the highest hills in the Presidency, the Nīlgiris and the Anaimalais, the latter of which are perhaps the most striking range in Southern India, consisting of a series of plateaux, some rising to 7,000 feet in elevation, with forests of great importance. Through the three northern *tāluks* run the confused hills of the Eastern Ghāts, one of which, Kollegāl, is on a higher level than the rest of the District. Excluding this, the centre of Coimbatore consists of an open plain, sloping gradually eastwards away from the hills towards the river Cauvery, the eastern boundary of the District. The plain is broken here and there by isolated low hills; but otherwise, except in the level black cotton-soil tracts in the Udamalpet, Palladam, and Coimbatore *tāluks*, it is made up of a succession of gentle undulations between which the rivers run. Its scenery differs little from that of the adjoining east coast Districts, except that the frequent green patches of cultivation near its numerous wells give it in the dry season an unusually prosperous look. The spurs of the Eastern Ghāts in the three northern *tāluks* form two well-marked minor ranges, known as the Biligiri-Rangans and the Bargūr hills. The former, which consist of two ridges running up into peaks of over 5,000 feet, lie on the extreme west of the Kollegāl *tāluk*, extending into Mysore territory. The latter stand between the Bhavāni and Kollegāl *tāluks*, and are called after a village which lies among them. They form a long narrow plateau over 3,000 feet in height. In both of these ranges the scenery is always picturesque, while in many of the lower valleys the heavy jungle is particularly wild. Of the hills on the western frontier of the District the most conspicuous are Rangaswāmi Peak and Lambton's Peak.

Except the Aliyār, an unimportant stream, all the larger rivers run eastwards, following the trend of the ground, into the Cauvery, the most important river of the District and the boundary along the whole of its northern and eastern sides. At the north-west corner of Kollegāl this forms the famous Falls of SIVASAMUDRAM, well-known for their beauty, and now utilized to generate electricity for the machinery at the

Kolār Gold Fields, and for lighting the city of Bangalore. The Bhavāni, a perennial river, which rises in the Attapādi valley in Malabar, crosses the District from west to east just south of the three northern upland *tāluks*, and flows into the Cauvery at Bhavāni town. The Noyil, a fitful and uncertain stream, which is in high and rapid flood for a few days and then for months together almost dry, has its source in the Bolampatti valley among the outlying spurs of the Nīlgiris, and passes through Coimbatore city on its way to the Cauvery. The Amarāvati rises in the Anaimalai hills, receives the drainage of the northern slopes of the Palni hills in Madura District, and, after passing through Dhārāpuram and Karūr towns, joins the Cauvery at the point where the Districts of Coimbatore and Trichinopoly touch one another.

Most of the south of the District is composed of Archaean gneisses buried to a considerable extent under surface alluvium. The uniform level of the plain is sparingly broken at irregular intervals by small bands of members of the charnockite series of rocks, by one small band of syenite gneiss near Kāngayam, and by upstanding crags and ridges of crystalline schists. The northern hilly tracts include a vast area of charnockite rock. Near Kollegāl are a few ferruginous bands and poor quartz reefs. Near Kāngayam some very coarse ramifications of acid pegmatites once yielded beryl; and in the same locality corundum, which also occurs elsewhere, is found in a coarse red felspar rock.

The flora is naturally very varied, since the elevation and the rainfall of the District differ greatly in different parts. The higher plateaux of the Anaimalais, the low hills of the northern *tāluks*, and the dry central plain each possess their own characteristic plants and trees. The forest growth and the commoner crops are referred to briefly below. In the low country the trees differ little from those of neighbouring areas, and are usually of poor growth. Fruit trees are scarce. The well-known *tangedu* (*Cassia auriculata*), the bark of which is used in tanning, and fibres, resins, and vegetable oils of the common descriptions are abundant.

The hill country contains all the game usual to such localities. Elephants are common in the Anaimalais and also occur in the Biligiri-Rangan hills in Satyamangalam. Near Hāsanūr in the latter *tāluk* Sir Victor Brooke shot (in 1863) the largest elephant on record in this Presidency. It stood 11 feet 4 inches at the highest point of its back, and one of its tusks measured 8 feet in length and weighed 90 lb., the other being diseased.

Among rarer animals are the Nīlgiri ibex (*Hemitragus hylocrius*), the hunting leopard (*Cynaelurus jubatus*), *nīlgai* (*Boselaphus tragocamelus*), said to be descended from some tame ones which belonged to Tipū Sultān, and an occasional wolf. There are mahseer of unusual size in the Bhavāni and Cauvery.

The lower hills of the District are malarious, especially from February to June, but elsewhere the climate of Coimbatore is unusually dry and proportionately healthy. The temperature varies inversely with the altitude, being highest in the low-lying Cauvery valley, more moderate in the uplands on the west, pleasant in the Kollegāl *tāluk*, as cool as the Salem Shevaroys in the Bargūr hills, and coolest of all on the higher ranges of the Anaimalais. The average mean of the year at Coimbatore city is 80°, compared with 83° at Madras.

The rainfall, like the temperature, varies considerably in different parts of the District. The Kollegāl *tāluk* receives some of the south-west monsoon and consequently has the heaviest fall, and the Pollāchi *tāluk* gets more rain than the Cauvery valley or the central plain of the District. This plain is the driest tract in the Presidency, except the centre of Bellary District. The annual fall for the whole District averages about 26 inches. The rainfall is, however, exceedingly capricious and uncertain, and the country is liable to frequent cycles of continuous deficiency in the monsoons, causing long droughts. Thirty-one lives were lost in an earthquake which occurred on February 8, 1900.

History.

The District was never a political entity and its history is not of particular interest. Coimbatore and the south-western *tāluks* of the present Salem District formed the Kongu country, and Coimbatore is still called the Kongunād. During the ninth century the Kongu country passed under the Chola kings, who held it for nearly 200 years. It then broke up into a number of small principalities, which during the eleventh century fell an easy prey to the Hoysala Ballāla kings of Mysore. In the fourteenth century, this dynasty in its turn gave way to the empire of Vijayanagar, which held the country until its downfall in 1565. Coimbatore then came into the hands of the Vijayanagar deputy at Seringapatam, who, like his colleagues, had assumed independent powers, and shortly afterwards passed from him to the deputy at Madura. During the second half of the seventeenth century the whole District seems to have been a prey to constant wars and raids, owing to the conflict between the Vijayanagar deputies and the growing power of Mysore. Kāveripuram was attacked in 1644, Satyamangalam was taken in 1653, Erode and Dhārāpuram in 1667; and before Chikka Deva Rājā of Mysore died in 1704 the whole of the District had come under his dominion. But it continued to be largely ruled through the agency of *poligārs*, or petty chieftains, whose powers were almost absolute and who used them ruthlessly, and the people gained little by the change of sovereigns. In 1761 Haidar Alī usurped the Mysore throne. During the forty years of Muhammadan rule which followed, until the District passed to the Company after the defeat and death of Haidar's son Tipū Sultān at Seringapatam in 1799,

it was the scene of incessant marches and countermarches, advances and retreats, by the British and the Mysore troops; and the forts scattered through it, notably those at Erode, Karūr, Dhārāpuram, and Coimbatore, were constantly taken and retaken in the numberless engagements which occurred. On four distinct occasions the District became the field of conflict between the British and Mysore powers. At the end of 1760 a British force took Karūr, in retaliation for the assistance rendered in that year by Haidar to the French near Pondicherry; but, owing to the fact that Haidar was about this time expelled from Seringapatam and the Mysore officers in this District disclaimed any connexion with his acts, hostilities were carried no farther. In 1768, while Haidar was busy on the west coast, Colonel Wood marched through the District and, having completely conquered it, garrisoned the passes and the chief fortified places. His garrisons, however, were weak, and, in spite of the heroic resistance of some of them, every place in the District either fell or was abandoned before Haidar's advance at the end of the same year. In what is called the first Mysore War, while Tipū was engaged on the west coast in 1783, Colonel Lang entered Coimbatore to effect a diversion and took Karūr and Dhārāpuram; and later in the same year Colonel Fullarton marched through the District to relieve Mangalore, taking Coimbatore on the way. In the second Mysore War the District was the scene of considerable operations, since General Medows occupied it with a large force in 1790 and designed to invade Mysore by the pass of Gazalhatti. In September of the same year, however, Tipū descended that pass with a large army, and, after two stubborn engagements with Colonel Floyd at Satyamangalam, compelled the British forces to retreat and reoccupied all the forts in the District except Coimbatore and Karūr. Of these, Coimbatore fell after a gallant defence in the following year, and Karūr was restored to Tipū after the peace of 1792. Seven years later the District passed under British rule. Haidar had done something to check the *poligārs*' exactions; but his taxes were excessive, trade was crushed by numerous duties, and the peasantry were at the mercy of the troops who continually overran their villages, so that, when the British took it over, the District was in a pitiful condition.

Throughout the District, even on the Anaimalais, are scattered prehistoric kistvaens, which have been found to contain bones, pottery, implements, ornaments, and bronze images, and in one case 'punch-marked' coins. Several discoveries of Roman coins [1], chiefly of Augustus and Tiberius, have been made. Jain temples and remains are not infrequent. The most noteworthy Hindu temple is that at

[1] See *Catalogue No. 2 of Roman, Indo-Portuguese, &c., Coins in the Madras Museum*, by E. Thurston (Madras, 1894).

PERŪR, but even this is a modern erection and the work in it is pretentious and coarse.

Population.

The number of towns and villages in the District is 1,445. The population in 1871 was 1,763,274; in 1881, 1,657,690; in 1891, 2,004,839; and in 1901, 2,201,752. The decline in 1881 was due to the great famine of 1876–8. About 97 per cent. of the people are Hindus and more than 2 per cent. Musalmāns. The District is divided into ten *tāluks*—BHAVĀNI, COIMBATORE, DHĀRĀPURAM, ERODE, KARŪR, KOLLEGĀL, PALLADAM, POLLĀCHI, SATYAMANGALAM, and UDAMALPET—statistical particulars of which, according to the Census of 1901, are appended:—

Tāluk.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Kollegāl	1,076	1	122	96,563	90	+ 9·1	4,020
Erode	598	1	198	275,460	461	+ 11·5	10,553
Bhavāni	715	1	62	145,982	204	+ 21·8	4,480
Dhārāpuram	853	1	83	271,127	318	+ 7·2	12,825
Karūr	612	1	95	220,843	361	+ 4·3	11,595
Coimbatore	812	1	263	330,684	407	+ 7·6	25,544
Satyamangalam	1,177	1	175	214,101	182	+ 16·3	7,375
Pollāchi	710	1	158	195,608	276	+ 6·5	11,179
Palladam	741	1	193	300,904	406	+ 113	12,992
Udamalpet	566	1	86	150,480	266	+ 79	10,746
District total	7,860	10	1,435	2,201,752	280	+ 9·8	111,309

The head-quarters of the *tāluks* (except of Satyamangalam, which is at GOPICHETTIPĀLAIYAM) are at the places from which each is named. The chief towns are the municipalities of COIMBATORE, the administrative head-quarters of the District, ERODE, and KARŪR.

Owing to the large areas of forest which Coimbatore comprises, it is less densely populated than the other southern Districts of Madras; but during the decade ending 1901 the inhabitants increased at an unusual rate, the advance in the sparsely peopled *tāluks* of Bhavāni and Satyamangalam being specially notable, notwithstanding that considerable numbers emigrated to the Nīlgiris and Madura. Though the District is in the Tamil country, as many as 21 per cent. of the people speak Telegu; and in the Kollegāl *tāluk* Kanarese, the language of the adjoining State of Mysore, is spoken by 78 per cent. of the inhabitants.

By far the most numerous caste in Coimbatore are the agriculturist Vellālas, who are twice as strong here as in any other Madras District except Salem, numbering 690,000, or 31 per cent. of the population. Other common cultivating castes are the Kanarese Vakkaligas and the

Telugu Kammas and Tottiyans. After the Vellālas come the Chakkiliyans (leather-workers), who number 197,000, being more than twice as numerous as in any other District. Next come the Shānāns (toddy-drawers), 79,000; and after them the Paraiyans (field-labourers), 76,000, and the Oddes (well-sinkers and earth-workers), 74,000. Other castes which appear in strength are the Pallans and Pallīs, who are also mainly field-labourers, and the weaving communities of the Kaikolans, Devāngas, and Janappans. Brāhmans are unusually few, numbering only 36,000, or less than 2 per cent. of the population. These statistics correspond with those of the occupations of the people; for though the District is essentially an agricultural one, 65 per cent. of the people living by the land, it is less so than most, owing to the unusually large proportion who are toddy-drawers, leather-workers, earth-workers, and weavers. Among castes which are seldom found elsewhere may be mentioned the two jungle tribes of the Sholagas of the North Coimbatore hills and the Malasars of the Anaimalais.

Of the 17,800 native Christians in the District, over 15,000 are Roman Catholics. The Jesuit Fathers of the famous Madura Mission[1] had a chapel at Dhārāpuram as early as 1608. In 1739 a Bull of Pope Clement XII, prohibiting certain Hindu customs tolerated till then, caused dissensions and apostasy. Then came the cessation of support from Portugal, and finally the suppression of the Society of Jesus by Clement XIV in 1773. The missionaries struggled on nevertheless; and in 1845 they were formed into a distinct mission, in charge of the French priests of the Société des Missions Étrangères, which in 1850 was made a bishopric. The London, Leipzig Evangelical Lutheran, and Wesleyan Methodist are the chief Protestant missions. These have been working in the District for about the last seventy, forty, and twenty years respectively.

Agriculture.

The Kollegāl *tāluk* differs as much from the rest of the District in agricultural conditions as it does in climate and altitude. Elsewhere gneiss is the chief underlying rock, and the soils derived from it are of fair composition, chemically considered. The four eastern *tāluks*—Bhavāni, Erode, Dhārāpuram, and Karūr—are covered almost entirely with thin gravelly, sandy, or agglomerated calcareous soils, and these soils occupy more than half of the western *tāluks* also. In three of the latter, however—Coimbatore, Palladam, and Udamalpet—more than one-sixth of the cultivable area consists of black cotton soil, while in the two others, Pollāchi and Satyamangalam, there is a good deal of rich red loam. At the foot of the undulations of which all this part of the District consists is generally a layer of better soil, which the light rainfall has washed down from the higher ground, and these bottoms are more than usually fertile. In

[1] See the four volumes of *La Mission du Maduré* (Paris, 1847–8, 1865).

them are to be found the majority of the numerous wells for which the District is noted. Both 'wet' and 'dry crops' on all classes of soil are mostly matured with the help of the north-east monsoon in October and November.

The District is almost entirely *ryotwāri*, the *zamīndāri* and *ināms* lands covering only 684 square miles. The area for which particulars are on record is 7,672 square miles, statistics of which for 1903–4 are given in the following table, in square miles :—

Tāluk	Area shown in accounts.	Forests.	Cultivable waste.	Cultivated	Irrigated.
Kollegāl	1,187	718	239	162	11
Erode	600	16	6	520	92
Bhavāni	715	372	70	253	36
Dhārāpuram	854	5	5	776	106
Karūr	575	3	4	506	61
Coimbatore	814	208	31	500	71
Satyamangalam	1,056	534	45	379	72
Pollāchi	584	200	1	349	38
Palladam	739	...	7	672	117
Udamalpet	548	222	...	295	67
Total	7,672	2,278	408	4,412	671

The staple food-grains of the District are *cholam* and *cambu*, the areas under which in 1903-4 were 1,033 and 1,010 square miles, or 26 and 25 per cent. respectively of the total area cropped. *Cholam* is the most prominent crop of the southern and western *tāluks*, and *cambu* of the east and north of the District. Next in importance come various pulses and *rāgi*. About one-fourth of the latter is grown in Kollegāl. Rice occupied only 193 square miles in 1903–4. Cotton is mainly grown in the Erode, Palladam, and Udamalpet *tāluks*, and sugar-cane in Coimbatore and Udamalpet. Tobacco is an important crop everywhere except in Erode and Kollegāl, and there are about 1,400 acres under coffee. In Kollegāl 8,000 acres produce mulberry, which is cultivated to feed the silkworms bred there.

The extension of the area of holdings during the last thirty years has amounted to 5 per cent., though three-fourths of the arable area in Kollegāl and considerable tracts in Satyamangalam, Bhavāni, and Coimbatore are still unoccupied, nor has much been done to improve the quality of the crops grown. Bourbon cotton was introduced at the beginning of the last century, succeeded well, and is still largely grown ; but extensive experiments with American varieties have failed. The Mauritius sugar-cane has, however, ousted the indigenous variety. The ryots have availed themselves of the Land Improvement Loans Act far more freely than in any other District in the Presidency. During the sixteen years ending 1904 more than 15 lakhs was advanced under

the Act, the greater portion of which has been laid out in digging or repairing wells.

The chief breeds of cattle in the District are the Alambādi, Bargūr, and Kāngayam. The first are best for heavy draught, the second as trotters, and the last as dairy cattle. The Alambādis are sent to the great cattle fair at Madura and to other markets in the southern Districts. There are large local fairs at Mādeswaramalai, in the Kollegāl hills, Avanāshi, and TIRUPPŪR[1]. Ponies have long been bred by the *zamīndārs* and wealthier ryots in Coimbatore; and since 1885 Government has encouraged the enterprise by supplying stallions, eight of which are now stationed in various towns in the District. The annual pony shows held under Government control at Tiruppūr have demonstrated that an improvement in the breed has already taken place and that a further advance may be looked for. Sheep are of two breeds, the Kurumba and the Semmeri. The former is a black-faced sheep with white wool. The Semmeri sheep are brown, and covered with hair instead of wool, and are valued only for their flesh. Goats are bred mainly for their manure.

Of the total area of *ryotwāri* and 'minor *inām*' land cultivated, 671 square miles, or 19 per cent., were irrigated in 1903-4. Of this as much as 502 square miles was watered from wells, while Government canals irrigated 119 square miles, and tanks only 35 square miles. The Cauvery supplies about 5,500 acres, of which 1,000 are in the Kollegāl *tāluk* and the remainder in Karūr. Various channels from the Amarāvati, fed by *korambus*, or temporary dams across the river, irrigate 44,000 acres of first and second crop in the Udamalpet, Dhārāpuram, and Karūr *tāluks*. Two dams across the Bhavāni irrigate 39,000 acres in the Satyamangalam and Erode *tāluks*. Of the 151 tanks in the District, the only ones of importance are the Appakkudal chain in the Bhavāni *tāluk*, fed by streams from the Bargūr hills, and the Dhali series in the Udamalpet *tāluk*, supplied from the Anaimalais. The wells of the District are its mainstay. They irrigate three times the area which the Government channels and tanks supply, and are unfailing in all but the severest droughts. About 74,000 of them are in working order, and they permit the growth of two and even three crops a year on the land commanded by them. Leathern buckets drawn up with a rope and pulley by cattle working down an inclined plane are universally used for lifting the water.

Coimbatore is one of the few Districts in the Presidency which has real forests, as distinguished from the patches of scrub and small trees which make up the greater portion of the technical forest area. It

[1] For further particulars, and an account of the breeding herd of the Pattagar of Pālaiyakkottai in this District, and of the grasses grown for pasture, see Bulletins Nos. 8, 27, and 44 of the department of Land Records and Agriculture.

consequently has two District Forest officers, instead of one as usual, whose charges are known as North and South Coimbatore. The District possesses 2,008 square miles of 'reserved' forests, besides 270 square miles, mainly in Kollegāl, of 'reserved' land at the disposal of the Forest department.

Forests.

In North Coimbatore nearly the whole of the forests are in the three hilly northern *tāluks* of Bhavāni, Kollegāl, and Satyamangalam. The greater part of these are at present chiefly valuable as grazing-ground for cattle. They must have been at one time much finer than at present; but, owing no doubt to the large number of villages situated in the 'reserved' area, they have suffered from forest fires and perhaps from excessive grazing. At present they form only a poor catchment area for water, which is apt to flow down to the plains in sudden and destructive floods after rain. Still, though the trees are small, there are a number of valuable species. Sandal and cutch form an almost continuous belt running from the west of Satyamangalam to the east of Bhavāni. In patches along the valley of the Cauvery the hills are covered with *acha* (*Hardwickia binata*); and teak is found in the Bargūr hills, in some of the valleys of Kollegāl, and on the plateau above Satyamangalam. *Vengai* (*Pterocarpus Marsupium*) is common almost everywhere, *jāl* (*Shorea Talura*) is fairly abundant, black-wood (*Dalbergia latifolia*), *Eugenia*, *Terminalia*, and many other valuable species occur frequently in the damper areas, while the drier parts contain a considerable amount of satin-wood, *Albizzia*, and *Anogeissus*. A large revenue is obtained from minor forest produce, the principal items being tanning material in the shape of myrabolams and *tangedu* bark (*Cassia auriculata*), while soap-nuts (*Sapindus trifoliatus*), *sīkāy* (*Acacia concinna*), *vembādam* bark (*Ventilago madraspatana*), and honey and wax are also of importance.

The most important part of the South Coimbatore forests lies on the Anaimalais, in the Pollāchi and Udamalpet *tāluks*, and is described in the account of that range. In the Coimbatore *tāluk* the forests run along the western frontier, consisting chiefly of those lying up the Bhavāni valley, those about Lambton's Peak range south of this, and those in the Bolampatti valley yet farther south. The Bhavāni valley forests produce fair black-wood and *vengai* and excellent *ventek* (*Lagerstroemia microcarpa*) and wild mango, but the difficulties of transport are great. The Bolampatti forests also produce fine black-wood and *vengai*, though their chief value lies in the protection they give to the head-waters of the Noyil river. In 1903-4 the receipts from the forests amounted to Rs. 2,74,000, and the charges to Rs. 2,15,000. Of the former the most considerable items were timber (Rs. 66,000, of which all but Rs. 5,000 came from South Coimbatore), grazing fees (Rs. 67,000, of which Rs. 56,000 came from the northern division), sandal-

wood (Rs. 28,000, all of which came from the same tract), and firewood and charcoal (Rs. 23,000).

Minerals.

The minerals of the District are hardly worked at all. In Bhavāni and Satyamangalam iron is rudely smelted in small quantities from the black iron-sand, and being much harder than English iron is in considerable demand. In Kollegāl and Satyamangalam the old gold-workings have lately been under exploration[1]. Saltpetre is obtained in large quantities by lixiviating the alkaline soils during the hot season in shallow mud vessels, and then boiling the resultant liquid in large pans. The process gives a crude saltpetre fit for manure. For pure saltpetre a second or even a third boiling is necessary. In 1903 as many as 871 native factories and fifteen refineries were reported to be at work. Saltpetre is coming into increasing use as a manure on coffee estates. A mine near Kāngayam produced beryl of some value in 1819–20, when it was last worked. It has been suggested[2] that this mine was the source of the Indian beryl mentioned by Pliny, and that the export to Rome is the main reason for the numerous finds of Roman coins which have been made in the District. Corundum is worked by natives in an irregular fashion at Salangaippālaiyam, 8 miles from Bhavāni, at Gopichettipālaiyam, and at Sivanmalai in the Dhārāpuram *tāluk*. The last-named deposits are the richest[3].

Trade and communications.

The only important arts in the District are cotton- and silk-weaving and the making of cotton carpets. Cotton-weaving is of the ordinary kind, only coarse cloths being made. Silk-weaving is carried on only in the Kollegāl *tāluk*, where silkworms are bred in considerable numbers. The dyes used are good, and the cloths effective and handsome. In some cases they are ornamented by the introduction of gold and silver embroidery, and the gold-laced cloths and kerchiefs are well-known. These sometimes sell for as much as Rs. 300 each, and even more, according to the quantity and quality of the embroidery, which, in the highest-priced cloths, is woven in intricate and elegant designs into the texture of the cloth while still on the loom. The cloths are sold locally, or sent to Madras, Bangalore, and Mysore. Small cotton carpets are made at Bhavāni. White yarn, spun at the Coimbatore mills, is used for the warp, and the cotton for the woof is dyed locally. The Cauvery water is said to make peculiarly brilliant and fast dyes. The carpets are sold locally or sent to Trichinopoly and Madras. At Settipālaiyam near Tiruppūr a

[1] For a detailed account of the matter see *Memoirs, Geological Survey of India*, vol. xxxiii, pp. 53–67.

[2] *Indian Antiquary*, vol. v, p. 237.

[3] See Part I (Corundum) of the Economic Section of the *Manual of the Geology of India* (Calcutta, 1898).

few families of lapidaries grind crystals on emery disks for spectacles, and also make them into *lingams* and other sacred images. At Anaipālaiyam, a neighbouring village, good bell-metal gongs are manufactured, the constituents of the particular alloy used being a trade secret.

There are eight cotton-cleaning and pressing factories in the District. Five of these have been working for many years, and four are driven by steam. They clean or press the local cotton for export to Bombay and England, and employ an average of 300 hands daily, and press annually 3,000 tons of cotton, valued at 15 lakhs. At Coimbatore there is a recently established spinning-mill. Particulars of this and other industrial enterprises there are given in the article on that city. Leather-making is an important industry in the District. There is a tannery under European management at Coimbatore, and another at Mettupālaiyam. Leathern buckets for the numerous wells in the District are made in thousands annually, as each well requires a new bucket once a year.

The chief exports are cereals and pulses, chillies, turmeric, spices, cotton, oilseeds, tobacco, *ghī*, sandal-wood, plantains, jaggery, brass and copper vessels, cattle, and leather; while the chief imports include rice, salt, salted fish, piece-goods and twist, metal and metal-goods, and coco-nut oil. Exports and imports are mainly to and from the neighbouring Districts; but the cotton from the northern *tāluks* goes to Madras and that from the southern to the cotton-presses in Madura and Tinnevelly, the latter mainly by carts, which come in from those parts by the thousand during the cotton harvest. The jaggery goes chiefly to the west coast by road and rail through the Pālghāt Gap; the tobacco largely to the same country and to North Arcot, where it is cured by Muhammadan dealers. Much of the *ghī* goes to Mysore. Coco-nut oil is chiefly imported from Malabar. Coimbatore and Dhārāpuram are the chief centres of general trade and Palladam of the cotton trade; and the principal trade castes are the Chettis and Labbais. The Nāttukottai Chettis, the banking sub-caste of the former, are numerous in Udamalpet and Karūr; and of the Labbais a large proportion are to be found in the Karūr *tāluk*, especially at Pallapatti. Most of the internal trade is effected at the numerous weekly markets. These are managed by the local boards, and in 1901 nearly Rs. 50,000 was collected in fees. The most important are those at Pollāchi, Kunnattūr, and Kāngayam.

The south-west line of the Madras Railway (standard gauge) enters the District on the east about 2 miles from Erode, and runs across to the Pālghāt Gap on the western frontier. From Podanūr a branch leads off to Mettupālaiyam, which is the terminus of the metre-gauge rack railway to Coonoor. The South Indian Railway enters the District

near Puliyūr and skirts the Cauvery up to Erode, where it joins the Madras Railway. It was converted to metre gauge in 1879. Other railways are under consideration, among them a metre-gauge line from Pālghāt or Podanūr junction to Palni in Madura District by way of Pollāchi and Udamalpet, and another from Erode to Nanjangūd in the State of Mysore through Satyamangalam.

The total length of metalled roads is 1,269 miles, and of unmetalled roads 459 miles. All these, except 40 miles of metalled and 20 miles of unmetalled road in charge of the Public Works department, are maintained from Local funds. There are avenues of trees along 1,572 miles. The southern part of the District is well supplied with communications; but through the country above the Ghāts in the three northern *tāluks* only two roads are practicable for carts, the Bargūr *ghāt* and the Hāsanūr *ghāt*. The Gazalhatti pass in the extreme west is a stony track leading up to the Mysore plateau. It was formerly the chief road from Coimbatore to Mysore, but is now used only by pack animals.

Famine.

The District has suffered from constant scarcities, owing to the lightness of its rainfall and the absence of large irrigation works. The last ninety-three years have been tabulated as 6 good; 25 fair; 51 unfavourable; and 11 really bad. In 1861 both monsoons failed, prices of 'dry' grains nearly doubled, and state relief was necessary. In 1866 the south-west rains again entirely failed and the north-east monsoon was very light, so that relief was once more required. In the great famine of 1876–8 the District suffered very severely. At the height of the famine, in September, 1877, 30,000 persons were on relief works and 204,000 in receipt of gratuitous relief. It was calculated that more than 197,000 persons died of famine or the diseases that accompany it. Including advances to agriculturists and weavers, and remissions of land revenue, the famine in this District alone cost the state 50 lakhs. The last scarcity was in 1891–2. In September, 1891, nearly 7,000 persons were on relief works and 460 more were in receipt of gratuitous relief. It is estimated that during this season 127,000 cattle died. Including remissions, the state expended Rs. 1,36,000.

Administration.

For general administrative purposes the District is distributed into four subdivisions, one of the officers in charge of which is usually a member of the Indian Civil Service and the others Deputy-Collectors recruited in India. These subdivisions are Erode, comprising the Bhavāni, Dhārāpuram, Erode, and Karūr *tāluks*; Pollāchi, comprising Pollāchi, Palladam, and Udamalpet; and Coimbatore and Kollegāl, the former consisting of the Coimbatore and Satyamangalam *tāluks* and the latter of Kollegāl alone. There is a *tahsīldār* at the head-quarters of each of the *tāluks* and, except at

Bhavāni and Kollegāl, a stationary sub-magistrate also. The superior staff of the District consists of the usual officers, except that, as has already been mentioned, there are two District Forest officers.

There are four regular District Munsifs, and the Deputy-Collector and Magistrate of Kollegāl exercises the powers of a District Munsif throughout that *tāluk* and in the portion of Satyamangalam which lies above the Ghāts. Appeals from the Sub-Judge of Ootacamund and from the District Munsif's Court at Gūdalūr in the Nīlgiris, where there is on District Court, lie to the District Judge of Coimbatore. The Court of Session hears the sessions cases of the Nīlgiris as well as those which arise within the District itself. Murders, dacoities, and cattle-thefts fluctuate in numbers, as elsewhere, with the state of the season, but are more than usually common. Murders proceed in a large majority of cases from private personal motives. The frequency of dacoity and cattle-theft may in part be ascribed to the precarious livelihood which cultivation offers in so arid a tract, and in part to the proximity of Madura District, whence the Kallans, perhaps the most expert criminals in the Presidency, come over to Coimbatore to ply their profession. The system, which is firmly established in Madura, of paying thieves *tuppu-kūli*, or 'clue-hire,' for the recovery of stolen property, instead of reporting the theft to the police, has also obtained a strong hold in Coimbatore.

Little is known of the revenue history of the District prior to the time when the kingdom of Mysore was usurped by Haidar Alī. Chikka Deva Rājā of Mysore (1671–1704) made a regular survey of the country. He took two-thirds (in kind) of the gross produce of 'wet' lands, leaving the ryot one-third. When Haidar came into power at Mysore he apparently adopted this survey as the basis of his assessments; but he collected all his rents in money in a single payment, and not by instalments as is now the practice. This forced the ryots to sell immediately after the harvest at ruinously low prices, and much land was consequently abandoned. Tipū Sultān increased all the assessments by 25 per cent., and yet more land went out of cultivation in consequence; but he was never able to collect this exorbitant demand, and at his death the arrears were enormous, and only the garden lands and some 'wet' land had any sale value.

Major McLeod, who was the first British Collector of the country north of the Noyil river, the area south of this being included in the then Dindigul District, began in 1800 a regular survey of the Government[1] villages in the District, which he followed by a rough settlement. In the southern part of the District, the Collector (Mr. Hurdis) made a survey and proceeded to estimate the grain-producing value of each field—a new idea in those days, and to commute the Government share

[1] The *zamīndāris* were granted on a fixed permanent rent once for all.

into a money payment. Neither attempt was successful, the demand in both cases being more than the land could bear. The District as it exists at present was formed in 1805, Coimbatore being made its head-quarters. In 1808 the theory of permanent settlements had come into favour, and the District was divided into a number of small revenue farms of two or three villages apiece, which were leased to village head-men and wealthy ryots. This lease system was a complete failure owing to the abuses perpetrated by the renters, and the revenue fell from 21 to 17 lakhs. In 1815 the *ryotwāri* system was restored. A new survey and settlement, resulting in a considerable reduction of assessment, were made; but many of the undesirable characteristics of the old native régime were continued, and it was not until 1864 that revenue administration had reached the present stage. In 1860 a new survey of the District was begun, and in 1872 a resettlement was put in hand, which was completed in 1882. The survey found an excess in the cultivated area of 6½ per cent. over the amount shown in the accounts, and the settlement enhanced the total revenue by 8 per cent., or a little over 2 lakhs. The average assessment on 'dry' land is R. 0-14-7 per acre (maximum Rs. 2, minimum 4 annas), and that on 'wet' land Rs. 6-7-6 (maximum Rs. 12, minimum Rs. 2½).

The revenue from land and the total revenue in recent years are given in the following table, in thousands of rupees:—

	1880-1.	1890-1.	1900-1	1903-4.
Land revenue . .	28,50	30,96	33,76	34,94
Total revenue . .	34,61	43,98	51,27	55,25

Outside the three municipalities of Coimbatore, Karūr, and Erode, local affairs are managed by the District board, and by the four *tāluk* boards of Coimbatore, Erode, Pollāchi, and Kollegāl, the areas under which correspond with those of the four administrative subdivisions. The total expenditure of these boards in 1903-4 was about 4½ lakhs, nearly half of which was laid out on roads and buildings. The chief source of their income is, as usual, the land cess. In addition, the affairs of 21 of the smaller towns are managed by Union *panchāyats*, established under Madras Act V of 1884.

The District Superintendent of police at Coimbatore has general control over the Nīlgiri District as well as his own. The Nīlgiris and Coimbatore together have 84 police stations; and the force, in 1904, numbered 1,488 constables and 1,564 rural police, under 20 inspectors. Besides the Coimbatore Central jail, there are 15 subsidiary jails, which can collectively accommodate 270 prisoners.

According to the Census of 1901 Coimbatore stands twelfth among the Districts of the Presidency in the literacy of its population, of

whom 5·1 per cent. (9·7 males and 0·6 females) are able to read and write. Education is most advanced in Coimbatore, and most backward in the Satyamangalam, Kollegāl, and Bhavāni *tāluks*. The total number of pupils under instruction in 1880–1 was 12,485; in 1890–1, 26,946; in 1900–1, 39,724; and in 1903–4, 39,559. On March 31, 1904, there were 1,065 primary, 30 secondary, and 5 special schools, besides 2 colleges. The girls in these numbered 4,341. Besides the public schools, 179 private schools contained 3,172 male and 408 female scholars. Of the 1,102 institutions classed as public, 8 were managed by the Educational department, 103 by the local boards, and 12 by municipalities, while 574 were aided from public funds, and 405 were unaided but conformed to the rules of the department. The enormous majority of the pupils under instruction are only in primary classes, and the number of girls who have advanced beyond that stage is extremely small. The improvement in all directions during the last thirty years has, however, been very marked. Of the male population of school-going age 18 per cent. were in the primary stage of instruction in 1903–4, and of the female population of the same age 3 per cent. Among Musalmāns (who, however, form a very small proportion of the population) the corresponding percentages were 76 and 9. About 2,700 Panchama pupils were under instruction at 111 schools especially maintained for depressed castes. The two colleges are in Coimbatore city, to which place will also be moved shortly the College of Agriculture of the Province, now located at Saidapet. The total expenditure on education in 1903–4 was Rs. 2,94,000, of which Rs. 1,11,000 was derived from fees. Of the total more than half was devoted to primary education.

The District possesses 12 hospitals and 12 dispensaries, with accommodation for 132 in-patients. In 1903 the number of cases treated was 220,000, of whom 1,500 were in-patients, and 7,400 operations were performed. The expenditure was Rs. 54,000, the greater part of which was met from Local and municipal funds.

In regard to vaccination the District has been backward of late years, but during 1903–4 the number of persons successfully vaccinated was 28 per 1,000, or only a little less than the mean for the Presidency (30). Vaccination is compulsory in the three municipalities and in 15 of the 21 Unions.

[Sir F. Nicholson, *District Manual* (1887), and H. A. Stuart, Revised edition (1898).]

Coimbatore Subdivision.—Subdivision of Coimbatore District, Madras, consisting of the *tāluks* of COIMBATORE and SATYAMANGALAM.

Coimbatore Tāluk.—Western *tāluk* of the District of the same name, Madras, lying between 10° 49′ and 11° 24′ N. and 76° 39′ and 77° 10′ E., with an area of 812 square miles. The population in 1901

was 330,684, compared with 307,282 in 1891. The *tāluk* contains one town, COIMBATORE (population, 53,080), the head-quarters of the *tāluk* and the District; and 263 villages. The demand for land revenue and cesses in 1903–4 amounted to Rs. 4,29,000. The *tāluk* is flanked on the west by the Nīlgiri Hills, numerous outliers from which run down into it on that side, but on the east it consists of an open plateau with a very pleasant climate. One-fourth of it is covered with forest. Irrigation is chiefly from the Noyil river, which passes through the centre, but it is also known for its tanks. Six-sevenths of the 'dry' land is red sand or red loam of a good kind. As in the other northern and western *tāluks*, *cholam* is the chief crop, though *cambu* also is grown, and a considerable quantity of cotton.

Coimbatore City (*Koyamuttūr*).—Head-quarters of the District and *tāluk* of the same name, Madras, situated in 11° N. and 76° 58′ E., on the left bank of the Noyil river, and on the trunk road from Madras City to Calicut, 305 miles from the former by the Madras Railway. The population in 1872 was 35,310; in 1881, 38,967; in 1891, 46,383; and in 1901, 53,080. It is thus a rapidly growing place, and now ranks tenth among the towns of the Province. About 85 per cent. of the inhabitants are Hindus, Musalmāns numbering 4,129 and Christians 3,869.

During the wars with Haidar Alī and Tipū, Coimbatore, from its position commanding both the Pālghāt Gap leading to Malabar and the Gazalhatti pass to Mysore, was of great strategical importance. It was taken by the British in 1768, but was almost immediately lost again, the Muhammadan commandant treacherously murdering the British officers and handing it over to Haidar. In 1783 it surrendered to Colonel Fullarton, but was shortly afterwards restored to Tipū on the eve of the Treaty of Mangalore. On the reopening of hostilities in 1790 it was retaken by the British. The year after, Tipū sent 2,000 regulars with guns and a considerable body of irregulars to regain it. The siege which followed is the most memorable event in its history. The fort was energetically and successfully defended against the first investing force by Lieutenant Chalmers (afterwards Major-General Sir John Chalmers, K.C.B.) and a young Frenchman named Migot de la Combe, with a small force of 120 topasses and 200 Travancore sepoys, of whom the majority either deserted or proved extremely insubordinate. Tipū then sent a second force of 8,000 regulars with fourteen guns and a large number of irregulars and cavalry under Kamar-ud-dīn, his most famous general, to avenge the repulse. The garrison had meanwhile been strengthened by reinforcements under Lieutenant Nash, and numbered 700 men. A weak relieving force from Pālghāt was beaten back, and eventually, both Chalmers and Nash being wounded, the place was surrendered (October, 1791) on

condition that the garrison should be allowed to retire unmolested to Pālghāt. Tipū, however, violated these terms and sent Chalmers and Nash as prisoners to Seringapatam[1]. A couple of months later the British once more reoccupied Coimbatore, but in 1792 it was again restored to Tipū. In 1799 the British captured it yet again, and were finally confirmed in possession by the fall of Seringapatam in the same year. It was made the capital of the District in 1865.

Coimbatore is now one of the most desirable stations in the Presidency. Situated 1,300 feet above the sea, in a picturesque position at the mouth of the Bolampatti valley, with the masses of the Nīlgiris and the Anaimalais rising into view on either side, its light annual rainfall of 22 inches and its moderate mean temperature render it at once healthy and pleasant. It is the head-quarters of the ordinary District staff; and also of a Conservator of Forests, a Deputy-Inspector-General of Police, a Superintending Engineer, an Inspector of Schools, and a company of the Nīlgiri Volunteer rifles. One of the seven Central jails of the Presidency is also located here. This was completed in 1868 and has accommodation for 1,340 prisoners. The convicts are largely employed in weaving, their average annual out-turn being 420,000 yards of cotton fabrics, worth Rs. 92,000, most of which is khaki or white drill made for the army or civil departments. The city further contains the cathedral of the Bishop of the French Société des Missions Étrangères, and the head-quarters of the London and the Leipzig Evangelical Lutheran Missions working in the District.

Coimbatore was constituted a municipality in 1866. During the ten years ending 1903 the municipal receipts and expenditure averaged Rs. 50,000. In 1903-4 the income was Rs. 76,000, chiefly derived from the house and land taxes (Rs. 16,500) and tolls (Rs. 12,000); while the expenditure was Rs. 79,000, including conservancy (Rs. 40,000), roads and buildings (Rs. 11,000), and the municipal hospital, which contains beds for 40 in-patients (Rs. 8,000). The outlay on conservancy was abnormal owing to the appearance of plague, and was partly met by a contribution from Government. A water-supply scheme is under investigation, of which the approximate cost is estimated at 3·3 lakhs.

Coimbatore is also the industrial and educational centre of the District. It contains a steam cotton-press; a cotton-spinning mill, which has 20,000 spindles, employs nearly 1,000 hands daily, and turns out some 850 tons of yarn; a tannery, which employs 240 persons and produces 200 tons of leather worth 6 lakhs; two steam coffee-curing works, which employ 400 hands and treat coffee worth 12 lakhs, mostly from the Salem Shevaroys; a steam factory, in which manure is made from blood, bones, and oilseeds; some works where coffee is roasted

[1] For further details of the two sieges, see Wilson's *History of the Madras Army*, vol. ii, pp. 212-6 (Madras, 1882).

and ground for consumption; and a saltpetre refinery. All these are under European management, but in addition a distillery and a sugar factory owned by natives produce 62,000 gallons of spirit and 440 tons of sugar respectively.

The chief educational institutions are the Coimbatore and St. Michael's Colleges, both of the second grade. The former was established in 1852 by Mr. E. B. Thomas, then Collector of the District, and is managed by a committee of residents. In 1903–4 it had an average attendance of 525 boys, of whom 67 were reading in the F.A. classes. The latter began in 1860 as a small school established by the French Roman Catholic Mission, and was affiliated to the University in 1891. Its average attendance in 1903–4 was 440, and there were 39 boys in the F.A. classes. The College of Agriculture, now located at Saidapet in Chingleput District, will shortly be moved to Coimbatore; and a forest school, for the training of deputy-rangers and foresters, has been opened.

Colair Lake (*Kolleru* or *Kolār*).—This, the only large natural fresh-water lake in the Madras Presidency, lies in Kistna District between 16° 32′ and 16° 47′ N. and 81° 4′ and 81° 23′ E. Half lake, half swamp, it is a great shallow depression, roughly elliptical in shape, which was doubtless originally part of the Bay of Bengal. On either side of it the great rivers Godāvari and Kistna pushed their deltas farther and farther out into the sea, until the southward extremity of the one joined the northward limit of the other, and the arm of land thus formed cut off the Colair depression from the salt water. The streams which flow into it now keep its waters fresh, but the silt they carry is rapidly filling it up and in course of time it will inevitably disappear. The extent of the Colair Lake varies greatly. During the monsoon it exceeds 100 square miles, but in the dry season it shrinks considerably, and sometimes, as in the drought of 1900, the lake dries up altogether. Reclamations and embankments are annually reducing its dimensions.

To the north of it, from 20 to 50 miles away, lie the highlands of the Eastern Ghāts, and the drainage from about 2,000 square miles of these is passed into the lake by three mountain torrents called the Budimeru, the Tamileru, and the Weyyeru. This water leaves the lake by two outlets known as the Perantala Kanama and Juvir Kanama, and passes into the tidal stream of the Upputeru ('salt river'), which conveys it to the sea. Local legends say that the Upputeru was cut to drain the lake by an army which was endeavouring to capture the fort of Kolleti Kota on one of its islands, but was hampered by the depth of the water; and that Perantala Kanama was named after the daughter of the general, who was sacrificed by her father to ensure the success of his attack.

The Colair Lake is fairly well stocked with fish and abounds in water-fowl of every description. A regular export trade in bird-skins existed at one time, but the birds were so mercilessly pursued that they have greatly decreased in numbers. In the lake are many fertile and highly cultivated islands, which are included in 26 villages. The cultivation in these (over 10,000 acres) is watered from the delta channels of the Kistna river; but the cultivators own no proprietary rights in their lands, holding them on annual leases which may be revoked if any scheme of irrigation necessitates such a course.

Coleroon (*Kollidam*).—Northern arm of the Cauvery river, which branches off from the main stream about 9 miles west of Trichinopoly. For 17 miles it runs parallel to the Cauvery, and then turns towards and very nearly reunites with it. The island thus formed is called the island of SRĪRANGAM, and lies in Trichinopoly District. At the lower end of the island the Coleroon takes a north-easterly course, skirts the District of Tanjore on the north, and falls into the sea near Devikottai. The waters of the Coleroon are largely utilized for irrigation. Across the head, where it branches from the Cauvery, stands the Upper Anicut, a dam constructed between 1836 and 1838 to prevent the Coleroon, which runs in a lower bed than the Cauvery, from abstracting too much of the water, and so injuring the irrigation in Tanjore dependent on the main stream. The Grand Anicut, built by the Chola kings, a few miles lower down at the point where the Cauvery and Coleroon nearly meet again, serves a similar purpose. The object of these works is noticed at greater length in the article on the CAUVERY. About 70 miles below the Upper Anicut, the Lower Anicut again dams up the Coleroon, for the purpose of providing irrigation in South Arcot District and a portion of Tanjore. The trunk road from Kumbakonam to Madras passes over this dam. The Vadavār and North Rājā channels lead from it into South Arcot, while the South Rājā channel turns into Tanjore. The Lower Anicut system in 1903–4 irrigated 134 square miles in South Arcot, yielding a revenue of more than 4 lakhs, and 37 square miles in Tanjore, the revenue from which was nearly another lakh. The South Indian Railway crosses the river about 10 miles above its mouth by a girder bridge. A few yards higher up, a masonry bridge until recently carried one of the main roads. Half of the piers fell during the floods of November, 1903, and at present a ferry is supplying its place. The Coleroon is navigable by light craft for a few miles from its mouth, and is used to a small extent for the export of rice. It is altogether 94 miles in length, and drains an area estimated at 1,404 square miles.

Colgong (*Kahalgaon*).—Town in the head-quarters subdivision of Bhāgalpur District, Bengal, situated in 25° 16′ N. and 87° 14′ E., on the south bank of the Ganges and on the East Indian Railway, 245 miles

from Calcutta. Population (1901), 5,738. Ghiyās-ud-dīn Mahmūd, the last independent king of Bengal, died here in 1539 after the sack of Gaur. There is a rock temple of peculiar style, which formerly contained several fine specimens of sculpture, and the place appears to have been visited by the Chinese pilgrim Hiuen Tsiang. It is of some commercial importance and was once notorious as the resort of *thags*. Colgong was constituted a municipality in 1869. The income and expenditure during the decade ending 1901–2 averaged Rs. 5,000. In 1903–4 the income was Rs. 5,500, mainly from a tax on houses and lands; and the expenditure was Rs. 6,000. A scheme for the drainage of the town is under consideration.

[*Archaeological Survey Reports*, vol. xv, pp. 34–6.]

Collegāl.—Subdivision, *taluk*, and town in Coimbatore District, Madras. *See* KOLLEGĀL.

Colonelganj.—Town in the Tarabganj *tahsīl* of Gondā District, United Provinces, situated in 27° 8′ N. and 81° 42′ E., on the Bengal and North-Western Railway. Population (1901), 6,817. In 1780 the village of Sikrora (Secrora) became a cantonment, at which the Nawāb of Oudh stationed troops under a British officer to restrain the turbulent Rājās north of the Gogra. Another force was sent in 1802, and a bazar, named Colonelganj, was then founded. This was selected on annexation as the head-quarters of troops; and when the Mutiny broke out the English officers escaped with some difficulty to Balrāmpur, where they were protected. After the suppression of the rebellion, Colonelganj ceased to be a cantonment. The town is administered under Act XX of 1856, with an income of about Rs. 2,600. There is a flourishing export trade in rice, maize, and oilseeds. A dispensary is maintained here, and the American Methodist Mission has a branch. There is a school with 155 pupils.

Combaconum.—Subdivision, *tāluk*, and town in Tanjore District, Madras. *See* KUMBAKONAM.

Comercolly.—Town in Nadiā District, Bengal. *See* KUMĀRKHĀLI.

Comilla Subdivision.—Head-quarters subdivision of Tippera District, Eastern Bengal and Assam, lying between 23° 3′ and 23° 48′ N. and 90° 38′ and 91° 22′ E., with an area of 1,142 square miles. The greater portion of the subdivision is a level alluvial plain broken only by the Lālmai hills, 5 miles to the west of Comilla town; on the east this plain is bounded by the low jungle-clad hills of Hill Tippera. The population in 1901 was 957,699, compared with 821,285 in 1891. The density was 839 persons per square mile. The subdivision contains one town, COMILLA (19,169), the head-quarters; and 2,939 villages.

Comilla Town (*Kumillā*).—Head-quarters of Tippera District, Eastern Bengal and Assam, situated in 23° 28′ N. and 91° 11′ E., on the Gumti river, on the main road from Dacca to Chittagong. Popu-

lation (1901), 19,169. Comilla was constituted a municipality in 1864. The income during the decade ending 1901–2 averaged Rs. 22,500, and the expenditure Rs. 21,000. In 1903–4 the income was Rs. 30,000, of which Rs. 9,000 was derived from a tax on persons (or property tax), and Rs. 7,000 from a conservancy rate; and the expenditure was Rs. 27,000. The town is protected from inundation by an embankment along the bank of the Gumtī, which is maintained by the Rājā of Hill Tippera. The Dharmasāgar is a splendid tank, a mile in circumference, which was constructed by a Rājā of Tippera in the fifteenth century. Comilla contains an English church, the usual public offices, including a jail with accommodation for 308 prisoners, a second-grade Arts college under private management, and one Government and two private schools teaching up to the entrance examination. An artisan school was established by the District board in 1890, which is affiliated to the Sibpur Engineering College.

Comorin (*Kanniyākumāri*).—Village, shrine, and headland in the Agastīswaram *tāluk* of Travancore State, Madras, situated in 80° 5′ N. and 77° 33′ E. It is the extreme southern point of the Indian Peninsula, from which the chain of the Western Ghāts runs northwards. Population (1901), 2,368. On the sea-shore and at the apex, as it were, of the Indian Peninsula stands the temple of Kanniyāmbāl, or 'the virgin goddess,' celebrated for its sanctity. It is one of the most important places of pilgrimage in Southern India. In the *Periplus*, reference is made to a harbour, but none exists now. Ordinary sailing vessels frequently touch here, however, and the State authorities contemplate making it a port. It contains a palace of the Mahārājā and one of the Residencies in Travancore.

Condavīd.—Historic fort in Guntūr District, Madras. *See* KONDAVĪD.

Conjeeveram Tāluk.—Westernmost *tāluk* of Chingleput District, Madras, lying between 12° 42′ and 13° 8′ N. and 79° 34′ and 80° 5′ E., with an area of 514 square miles. The population in 1901 was 225,300, compared with 218,671 in 1891, the rate of increase being smaller than in any other *tāluk*. It is the only part of the District in which the females are in excess of the males. There are two towns, CONJEEVERAM (population, 46,164), the head-quarters, and SRĪPERUMBŪDŪR (5,481), the station of a deputy-*tahsīldār*; and 364 villages. Of these last, Perambākkam possesses some historical interest. The demand on account of land revenue and cesses in 1903–4 amounted to Rs. 5,08,000. The soil of the *tāluk* is generally very inferior, being either stony or mixed with lime, gravel, or laterite. Its general appearance is tame and dreary in the extreme, there being only one or two low conical hills in the north-east. The general level rises gradually but considerably from the river Pālār towards the north and west.

Along the northern bank of this river, palmyra, coco-nut, and tamarind trees have been largely planted. It is the chief source of irrigation, but the Korttalaiyār also furnishes a supply to a few villages in the north-west. The water from the Pālār is led either by direct flow from the river or by spring channels dug on both banks. A channel called the Kambakkal also takes off at the dam which has been built across the river in North Arcot District to supply the Kāveripāk tank. This flows along a ridge on the western and northern sides of the *tāluk*, and fills chains of tanks—sometimes two, three, and four in number—on each side of its course.

Conjeeveram Town (*Kānchīpuram*).—Head-quarters of the *tāluk* of the same name in Chingleput District, Madras, situated in 12° 50′ N. and 79° 42′ E., 45 miles west-south-west of Madras City on the branch line between Arkonam and Chingleput. It had a population in 1901 of 46,164: namely, 44,684 Hindus, 1,313 Musalmāns, 49 Christians, and 118 Jains. The real name of the town is Kānchi or Kānchīpuram, and the English form is merely a corruption of this. It is one of the most ancient towns in Southern India, and in the early centuries of the Christian era was the capital of the dynasty of the Pallavas. In the seventh century Hiuen Tsiang, the Chinese pilgrim, visited it; and he says the city was 6 miles in circumference and the people in it superior in bravery and piety, as well as in their love of justice and veneration for learning, to many others whom he met with in his travels. Jains were very numerous in his day, and Buddhists and Brāhmans of about equal influence. The town passed to the Cholas in the eleventh century. Conjeeveram became the capital of Tondamandalam, and continued in the hands of the Cholās until they were overthrown by the Musalmāns of the north in 1310. When the Vijayanagar kings came into power they speedily annexed the town. It was taken from them by the Musalmāns in 1646; the Marāthās succeeded in 1677; they were ousted by Aurangzeb's army shortly after; and it remained in the possession of the Musalmāns till 1752, when Clive took it from them in the wars with the French. In 1757 the French, beaten off in an attack upon its great temple, set fire to the town. In 1758 the English garrison was temporarily withdrawn on account of the expected advance of the French upon Madras, but was soon sent back with re-inforcements; and during the siege of the capital and the subsequent wars the place played an important part.

Conjeeveram is now accounted by Hindus as one of the holiest places in the South, and it is indeed placed among the seven sacred cities of India. It is crowded with temples and shrines. The old Jain temple is situated in the hamlet of Tirupparuttikunram, about 2 miles south of the weaver quarter of Conjeeveram, called Pillapālaiyam. Its florid architecture and the artistic merit of some of the details, notably

of the sculptures in the cloistered court which surrounds it, and of the colouring of the paintings on the ceilings, lead to the assumption—confirmed by inscriptions on the walls—that it belongs to the period when the Chola power was at its zenith. The Vijayanagar monarchs made several grants of land to this temple during the fourteenth, fifteenth, and sixteenth centuries. The inscriptions are very valuable for historical purposes, as they appear to commemorate gifts by almost the entire succession of dynasties who held the country for any length of time. The Vaikuntha Perumāl temple of Vishnu and the Saiva temple of Kailāsanāthar appear from inscriptions to have been built by the Pallava kings. Two others were built about 1502 by Krishna Deva, the greatest of the Vijayanagar rulers, and many of the smaller shrines and resthouses are due to the piety of members of the same dynasty. The great temple has tall towers, a hall of 1,000 columns, several large and fine porches, and great tanks with flights of stone steps. But these are all thrown together as if by accident, and form no consistent plan. Fergusson says that in it 'no two *gopurams* [towers] are opposite one another, no two walls parallel, and there is hardly a right angle in the place. All this creates a picturesqueness of effect seldom surpassed in these temples, but deprives it of that dignity we might expect from such parts if properly arranged.' The Varadarāja-swāmi Vaishnava temple is notorious for the bitter disputes which occur between the Tengalai and Vadagalai sub-sects who are connected with its worship. These have been going on for a century or more, and the litigation regarding them has proceeded as far as the Privy Council. Decisions have been given, but the interpretation to be placed upon these still gives occasion for threatened breaches of the peace.

Conjeeveram was constituted a municipality in 1866. The receipts and the expenditure during the ten years ending 1902–3 averaged Rs. 86,000 and Rs. 77,000 respectively. In 1903–4 the income was Rs. 59,000, mostly derived from the taxes on houses and land and the water rate; and the expenditure was Rs. 54,000. A scheme for the supply of good drinking-water was begun in 1895–6, and completed in two years at a total cost of Rs. 2,56,000. The water is obtained from the subterranean springs of the Vegavati river, in the bed of which an infiltration gallery, 330 feet long, 12 feet deep, and 8 feet broad, has been constructed. The water flows into a reservoir built at the end of the gallery, and thence passes into a well through a steel pipe. From this well it is pumped into the town by two steam engines which are worked by turns. They are capable of supplying 840,000 gallons of water daily, but the actual consumption is only about half of this quantity. The annual cost of the establishment maintained is Rs. 2,600. Superior *sārīs* of silk and cotton such as native women wear are made at Conjeeveram.

Conolly Canal.—Canal in the Calicut *tāluk* of Malabar District, Madras. The canal proper, which was constructed by Mr. Conolly, Collector in 1848, consists of a cutting about 3 miles in length, running through Calicut city and connecting the Elattūr or Korapula and Kallāyi rivers. It thus forms part of the line of water communication from Badagara to Beypore.

Contai Subdivision (*Kānthi*).—Southern subdivision of Midnapore District, Bengal, lying between 21° 36′ and 22° 11′ N. and 87° 25′ and 87° 59′ E., with an area of 849 square miles. The subdivision is a tract lying along the sea-coast, swampy and liable to inundation. The population in 1901 was 603,136, compared with 545,358 in 1891, the density being 710 persons per square mile. It contains 2,062 villages, including CONTAI, its head-quarters, but no town. This is the most progressive part of the District. The population increased by 10·6 per cent. during the decade ending 1901, immigrants crowding to the newly reclaimed lands, known as *jalpai* or 'fuel-lands,' so called because they formerly supplied the fuel for boiling brine when the landholders manufactured salt.

Contai Village (*Kānthi*).—Head-quarters of the subdivision of the same name in Midnapore District, Bengal, situated in 21° 47′ N. and 87° 46′ E. Population (1901), 2,558. The place has declined since the manufacture of salt was stopped about forty years ago. It contains the usual public offices; the sub-jail has accommodation for 15 prisoners.

Cooch Behār State (*Kuch Bihār*).—Feudatory State in North Bengal, lying between 25° 58′ and 26° 32′ N. and 88° 45′ and 89° 52′ E., with an area of 1,307 square miles. It is bounded on the north by the District of Jalpaigurī; on the east by Goālpāra; on the south by Rangpur; and on the west by Rangpur and Jalpaigurī.

Physical aspects.

Cooch Behār is a low-lying plain, the whole of which has at one time or another been subject to fluvial action. It is intersected by several large rivers; but they are of no use for drainage purposes, except in the cold season, when they are at their lowest, and even then the fall is so small that they are not very effective. Moreover, any attempt to cut drainage channels to them would lead in the rains to an inundation, rather than to the drainage of the area they might be constructed to serve. The State generally is, in fact, hopelessly waterlogged, and during the rains it is not uncommon to see the wells overflowing. The general direction of the rivers is from the north-west to the south-east; they rise in the Himālayas and fall into the main stream of the Brahmaputra. The most important are the TĪSTA on the west and the Sankosh on the east, while between these two are situated the Dharlā, the TORSĀ, the Kāljāni, the Raidāk, and other minor streams. The Tīsta enters the State within a few miles of its western boundary and flows in a south-easterly direction

for about 15 miles, when it passes into Rangpur. The Jaldhākā, which is called in Bhutān the Di-chu, enters the State at the north-west corner and flows more or less parallel to the Tīsta. It receives as tributaries the Gilāndi, Duduyā, Mujnai, and—later during its course when it is called the Mansai—the Satangā, Dolang, and Dharlā; after its junction with the river last named it assumes the name of Singīmāri. It is finally joined by the old channel of the Torsā, locally called the Dharlā, under which name the united stream leaves the State, after a course of about 60 miles within it with an average breadth of 400 to 500 yards throughout. It is shallow in the dry season, but is liable to heavy floods during the rains. The Torsā bifurcates in its course, one branch flowing south under the name of Dharlā and falling into the Singīmāri (Jaldhākā), while the other turns eastward and falls into the Kāljāni. The Kāljāni in its turn meets the Raidāk, which subsequently joins the Gadādhar; and the united river falls into the Brahmaputra by two mouths, the southern one being known as the Dudhkumār and the northern as the Sankosh.

The soil is everywhere alluvial. Where the ground is not occupied by the usual crops of North Bengal, it is covered with an abundant natural vegetation. Old river-beds, ponds, marshes, and streams with a sluggish current have a copious vegetation of *Vallisneria* and other plants. Land subject to inundation has usually a covering of *Tamarix* and reedy grasses; and in some parts, where the ground is more or less marshy, *Rosa involucrata* is plentiful. Few trees occur on these inundated lands; the most plentiful and largest is *Barringtonia acutangula*. On the higher ground also the trees are few and usually rather stunted, and the greater portion of the surface is covered with grasses, the commonest of these being *Imperata arundinacea* and *Andropogon aciculatus*. Among the trees the most conspicuous is the red cotton-tree (*Bombax malabaricum*); the *sissū* (*Dalbergia Sissoo*) and the mango occur as planted or sometimes self-sown species, bamboos grow in profusion, and palms, especially the areca, are common. Near villages there are usually thickets or shrubberies and more or less useful trees of a rapid growth and weedy character. A few tracts are maintained as shooting reserves, but these consist mainly of grass jungle, and there is no real forest.

The big game with which the State formerly abounded has receded northwards before the advance of cultivation, and within its limits the only wild animals now found are leopards, bears, deer, and hog. Of small game, florican and francolin are plentiful in some of the grassy plains.

The temperature is rarely excessive, the thermometer never rising above 93° in the shade and seldom so high, but the abnormal humidity makes the climate very trying and unpleasant. The lowest recorded

temperature is 49° and the mean about 78°. The annual rainfall averages 123 inches, of which 5·1 are received in April, 14 in May, 29·4 in June, 24 in July, 22·4 in August, 19·4 in September, and 5·5 in October.

In 1887 a severe cyclonic storm caused great havoc over a tract 25 miles in length and 8 in breadth, including Cooch Behār town. The earthquake of 1897 caused enormous damage to property. The bridges along the railway were broken and the permanent way was much cut up by fissures; roads with their bridges suffered similarly, and the total damage done to property, communications, wells, and tanks was approximately 20 lakhs. Tremors and shocks were frequent for a year after the main upheaval, during which jets of hot water and sand issued from the fissures. Prior to 1897 the severest and most frequent shocks of recent years were felt in 1885. Dr. Buchanan Hamilton makes mention of the frequency of earthquakes in this part of Bengal in 1808. The State has occasionally suffered severely from floods, the most memorable being those of 1787, 1822, 1842, and 1878.

History.

This tract once formed part of the ancient and famous kingdom of Kāmarūpa. In the fifteenth century it was ruled by a dynasty of Khen kings, the last of whom, Nīlāmbar, was overthrown by the Afghāns under Alā-ud-dīn Husain, king of Gaur, in 1498. Local traditions of this dynasty are still current, and more than one of its capitals are pointed out at the present day. Alā-ud-dīn appointed his son governor over Nīlāmbar's territories with the object of pushing his conquest farther east, but the latter was eventually defeated and his troops driven out of the country. A period of anarchy ensued, during which a number of petty principalities were formed by independent local rulers called Bhuiyās, and a fresh kingdom was then established by the Kochs. A divine parentage is ascribed to the Koch kings: the tradition is that the god Siva fell in love with Hirā, the wife of a Koch chief named Hājo, and the result of their intimacy was a boy named Bisu or Biswa Singh. The account current in the State, however, is that the kingdom was founded in 1510 by a chief named Chandan, and that he was succeeded by his cousin, Biswa Singh. The latter soon proved himself to be a mighty conqueror, and brought under his rule the whole tract from the Karatoyā on the west to the Barnadī on the east. He was succeeded about 1540 by his son Nar Nārāyan, the greatest of the Koch kings, who, with the aid of his brother Silarai, conquered all the neighbouring countries to the east and south, and even ventured to wage war with the Muhammadans. After Silarai's death, his son Raghu rebelled (in 1581), whereupon Nar Nārāyan divided his kingdom into two parts and gave up to Raghu the portion east of the Sankosh river. This event soon led to the downfall of the Koch kings. Nar Nārāyan died in 1584; and his son, Lakshmī Nārāyan, who

succeeded him, having quarrelled with Raghu's son, Parīkshit, invoked the aid of the Mughals and declared himself a vassal of the emperor of Delhi. The history of the Koch kings now loses all general interest. The eastern kingdom was gradually absorbed by the Ahoms, while the western was shorn of its outlying possessions by the Mughals on the south and west and by the Bhotiās on the north, until at last only the modern State of Cooch Behār remained in the precarious possession of Biswa Singh's descendants. Internal affairs also fell into deplorable confusion. In accordance with the curse of the Hindu political system, three families, all scions of the royal stock, the Nāzir Deo, the Dīwān Deo, and the Raikat of Baikuntpur, each claimed an hereditary position which was inconsistent with unity of administration, and did not hesitate to call in the foreign foe to support their pretensions.

It was under these circumstances that the attention of the East India Company was first attracted to Cooch Behār and its affairs. In 1772, the Nāzir Deo having been driven out of the country by his rivals, who were aided by the Bhotiās, and the Rājā having fled to Pāngā, the former applied for assistance to Warren Hastings, then Governor of Bengal. A detachment of sepoys was accordingly marched into Cooch Behār, and the Bhotiās were expelled after a short resistance and forced to sue for peace through the intervention of the Lāma of Tibet. The treaty between the East India Company and the Rājā of Cooch Behār made on this occasion bears date April 5, 1773. By the third clause the Rājā acknowledged subjection to the East India Company and consented to his country being annexed to the Province of Bengal. This right of annexation was, however, eventually waived by the Government. In subsequent clauses the Rājā promised to make over one-half of his annual revenues, according to an assessment to be made by the Company. This moiety was permanently fixed by the Collector of Rangpur in 1780 at Rs. 67,700. Fresh domestic dissensions soon reduced the administration to a deplorable condition, and in 1788 a Commission of two Civil Servants was nominated to inquire into the state of the country. The Commissioners concluded their report by recommending the appointment of a Resident or Commissioner at the town of Cooch Behār. This office subsequently became merged in that of Governor-General's Agent for the North-East Frontier. The present Mahārājā, His Highness Colonel Sir Nripendra Nārāyan Bhūp Bahādur, G.C.I.E., C.B., was placed on the *gaddi* on August 6, 1863, when he was only ten months old. In January, 1864, the succession was sanctioned by Government, but a British Commissioner was appointed to undertake the direct management of affairs during the minority of the young ruler. Several salutary reforms were thus introduced: a complete survey and settlement was made, and the various departments of the State were put upon the firm and substantial basis which underlies the present system

of administration. The Mahārājā received a wholly European training and education, and has at various times visited England. In 1878 he married the eldest daughter of the great religious reformer Keshab Chandra Sen, and in 1883 he assumed charge of the State. He took part in the Tīrāh campaign in 1897 and is an aide-de-camp to the King-Emperor. The Mahārājā is entitled to a salute of 13 guns.

Ruins of an old city founded by Rājā Nīladhwaj exist at KAMĀTĀPUR.

Population.

The population increased from 532,565 in 1872 to 602,624 in 1881, a gain of 13·1 per cent., but most of this was apparently due to improved methods of enumeration. Ten years later it fell to 578,868, owing mainly to the unhealthiness of the climate and, to a smaller extent, to emigration. In 1901 a further decline of 2·05 per cent. took place, the population decreasing to 566,974. The only *thāna* in which an increase occurred was Haldībāri, the principal centre of the jute trade. This is on the Eastern Bengal State Railway, and enjoys with Cooch Behār town the reputation of being the healthiest portion of the State. The falling off was greatest in the head-quarters *thāna*, where it was due not only to unhealthiness, but also to migration to Fulbāri. The State is liable to very severe epidemics of cholera. Insanity is more common than elsewhere in Bengal, and deaf-mutism and leprosy are also prevalent. The population is contained in 1,192 villages and four towns: COOCH BEHĀR, the head-quarters, MĀTĀBHĀNGA, HALDĪBĀRI, and DINHĀTA. The villages are not compact as in most parts of Bengal, but each farmer ordinarily lives apart in a separate homestead on his own land surrounded by his farm servants and adherents. The average number of persons per square mile in 1901 was 434, the density being greatest in the south. There is some immigration from Sāran and other Bihār Districts and the United Provinces. The vernacular of the State is the Rangpurī or Rājbansī dialect of Bengali. Hindus number 397,946, or more than 70 per cent. of the total population, and Musalmāns 168,236, or most of the remainder.

The Rājbansis or Kochs (338,000) are the distinctive caste of the State, forming 60 per cent. of the total, while most of the Nasyas (43,000) and Shaikhs (124,000) represent descendants of converts from this caste to Muhammadanism. Though the Kochs freely call themselves Rājbansis, it is believed (see *Bengal Census Report*, 1901, part i, pp. 382–3) that the two communities originally sprang from entirely different sources, the Kochs being of Mongoloid origin, while the Rājbansis are a Dravidian tribe who probably owned the name long before the Koch kings rose to power. In Cooch Behār the persons now known as Rājbansis are either pure Kochs, who though dark have a distinctly Mongoloid physiognomy, or else a mixed breed in which the Koch element usually predominates. The population is almost

entirely agricultural, 86·5 per cent. being dependent on agriculture for their livelihood, 4·9 per cent. on industries, and 1·4 per cent. on the professions.

Christians number 143, of whom 24 are natives. A Swedish mission called the Scandinavian Alliance Mission works in Cooch Behār town, but has made no local converts.

Agriculture. The soil is of alluvial formation, with a large admixture of sand and a substantial deposit of light loam to a depth of about two feet. Towards the west the soil is stiffer and contains a larger proportion of clay than sand. High-lying lands are used mainly for homesteads or for tobacco cultivation and, to a certain extent, where they contain a good admixture of sand, for the cultivation of the *bītari* or spring rice crop. On low-lying lands, possessing a smaller proportion of sand, *haimantik* or autumn rice is usually grown.

In 1903–4 the net area cropped was 638 square miles, 159 square miles were current fallow, 295 were cultivable waste other than fallow, and 199 were not available for cultivation, while 15 square miles were under forest. Of the net cropped area, 26 square miles were estimated to be twice cropped. By far the most important staple is rice, of which there are two crops; the *bītari* or early crop is sown broadcast, while the *haimantik* or late one is transplanted. Other food-crops are *chanī*, *kaon*, maize, and various pulses, including *mūng*, *masūr*, *khesāri*, *thākari*, *kurthī*, and *rahar*. Oilseeds, principally mustard, are extensively cultivated. The local tobacco, which is grown on 55 square miles, is a very important crop and has a high reputation. Burma cheroots are usually manufactured from tobacco grown in Cooch Behār and the adjoining British Districts. Jute is grown on 34 square miles; and that grown in Haldībāri and Chaurāhāt is of exceptionally good quality and commands a high price in the Calcutta market.

The cultivation of sugar-cane has been only recently introduced, but is increasing. Cultivation generally is extending, but cultivators are averse to the adoption of new methods; the only manure used is cow-dung for the tobacco crop.

There is no dearth of pasturage, but the local cattle are of a very small and inferior breed. The State keeps some bulls for breeding purposes, but the crossing of heavy imported bulls with the light local cattle has not proved a success. Large numbers of cattle yearly die from rinderpest, and a veterinary officer has recently been appointed to perform inoculations in the localities chiefly affected. Bullocks for draft purposes are imported in numbers from Sonpur and elsewhere, and sold at fairs at Haldībāri and Chaurāhāt.

The State contains innumerable tanks, besides 40 masonry wells, 85 Rānīganj pipe-wells, and 30 tube-wells; but for irrigation it depends entirely on its heavy rainfall. Famine is unknown.

A rough cloth is prepared from the silk of the *endi* worm, which is fed on the castor-oil plant. Coarse cotton fabrics are woven for local use, and the Gāro and Mech women make cloths of variegated colours for their own wear. A considerable amount of excellent gunny cloth is made, especially in Mekhlīganj; this locality was once noted for the manufacture of coloured carpets and curtains woven from pure jute and known as *mekhli*, but the industry is dying out. *Ghi* and mustard oil are made in large quantities, and molasses to a limited extent in the west and south.

Trade and communications.

The chief exports are tobacco, jute, rice, mustard seed and mustard oil; and the chief imports are cotton piece-goods, kerosene oil, sugar, molasses, salt, and brass, copper, and earthenware utensils. Jute and rice are exported from all parts of the State, the baled jute going mainly to Calcutta and the unbaled to Sirājganj. The tobacco trade is chiefly in the hands of Magh merchants, who pay yearly visits to Mekhlīganj and Lāl Bazar and purchase almost the entire crop for export to Burma. Several European jute firms are established at Haldībāri and Chaurāhāt, but otherwise most of the trade is in the hands of Mārwāri merchants. Some tobacco, mustard seed, and mustard oil are sent down by water to Dacca. Rice is largely exported to the tea gardens in the Duārs and sometimes by boat to Sirājganj. The railway extension in the State has recently given considerable impetus to both the jute and tobacco trade, though the Mārwāri and other native traders still prefer the river routes to the railway.

The Cooch Behār State Railway (2 feet 6 inches gauge) runs from Gitaldāha junction, where it connects with the Eastern Bengal State Railway system, to Jaintia at the foot of the Bhutān hills; its total length is 53½ miles, of which 33½ lie within the State. The new extension of the Eastern Bengal State Railway from Mughal Hāt to Dhubri runs through the south-east of the State for a distance of 12 miles, and on the west the northern section of the line runs for a distance of 5¼ miles. A short section (2¾ miles) of the Bengal-Duār Railway from Barnes Ghāt to Lālmanir Hāt also lies within the State. These three lines are all on the metre gauge. The State contains 382 miles of road, of which 5½ miles in Cooch Behār town are metalled; there are also 187 miles of village tracks. The most important roads are the emigration road which runs eastward through the State to Dhubri, passing through Haldībāri, Mekhlīganj, Pātgrām, Mātābhānga, and Cooch Behār town, and the Buxa and Rangpur roads.

The Tīsta is navigable by boats of 3 or 4 tons burden throughout the year. The Jaldhākā is navigable by boats of 7 tons burden up to the junction of the Mujnai, whilst boats of smaller tonnage can go as far as Fālākāta in Jalpaigurī District. The Kāljāni is a deep stream

and carries a considerable river traffic; boats of 7 to 11 tons come up all the year round, and timber from the Western Duārs is floated in considerable quantities down this river to the Brahmaputra from Alīpur. The most important ferry is that over the Tīsta river.

For administrative purposes the State is divided into five subdivisions: Cooch Behār, Dīnhāta, Mātābhānga, Mekhlīganj, and Tufānganj. At the head of the administration is the State Council, which consists of His Highness the Māhārājā Bhūp Bahādur as president, the Superintendent of the State as vice-president, the Dīwān as revenue member, and the Civil and Sessions Judge as judicial member. In judicial matters the powers of the High Court have been delegated to it, while in revenue matters it sits as a Board of Revenue; it exercises also legislative and executive powers.

Administration.

The Superintendent of the State, who is an officer lent by the British Government, is the executive head of criminal justice, police, jail, education, public works, and other minor departments. The Dīwān is in charge of the revenue department, being responsible for the collection of all kinds of revenue and the supervision of all proceedings in connexion with it; he exercises the powers of a Collector in a British District, and in some cases those of a Commissioner. The subdivisions are in charge of *naib ahlkārs*; the head-quarters *naib ahlkār* is the general assistant of the Dīwān in executive matters and also holds charge of the State treasury. Below the *naib ahlkārs* is a grade of sub-*naib ahlkārs*, whose powers are similar to those of Sub-Deputy-Magistrate-Collectors in Bengal. The *naib ahlkārs* and sub-*naib ahlkārs* are assisted by divisional *kānungos*, who are employed on survey and inquiry work.

The principal courts are the State Council, which is the highest appellate court in all branches of judicial administration, the courts of the Civil and Sessions Judge, the *Faujdāri Ahlkār*, and the Assistant Sessions Judge. On the criminal side the Civil and Sessions Judge exercises all the powers vested in a Sessions Judge according to the provisions of the Criminal Procedure Code, except that under the rules of the State capital punishment is never resorted to. In his civil capacity he discharges the functions of a District Judge, as defined by the Civil Procedure Code. An appeal lies to him from the decisions of the Assistant Civil Judges, *naib* and sub-*naib ahlkārs*. He is also *ex-officio* registrar of deeds. The *Faujdāri Ahlkār* exercises the powers of a District Magistrate, as defined in the Criminal Procedure Code; he is also in charge of the jail. The powers of the Assistant Civil Judges extend in the Cooch Behār subdivision to title suits, suits ordinarily dealt with by a Small Cause court, and rent suits of which the value does not exceed Rs. 1,000, and in the other subdivisions to title suits of which the value exceeds Rs. 500, but is not above

Rs. 1,000. The *naib* and the sub-*naib ahlkārs* have both civil and criminal jurisdiction; the former exercise the powers of subdivisional officers as defined in the Criminal Procedure Code, and the latter are second or third-class magistrates, as the case may be. The *naib ahlkars* are also sub-registrars, and exercise powers extending to all title suits up to the value of Rs. 500 and to all rent suits and suits of a Small Cause court nature up to the value of Rs. 1,000. The sub *naib ahlkārs* exercise jurisdiction in title suits up to the value of Rs. 50, and in rent suits and suits of a Small Cause court nature up to the value of Rs. 100, each in his respective subdivision. In criminal matters they are subordinate to the *Faujdāri Ahlkār*, and on the civil side to the Civil Judge.

The total revenue under the main heads amounted in 1903–4 to 23·29 lakhs, of which 13·66 lakhs was derived from land revenue, 1·52 lakhs from stamps, 1·11 lakhs from excise and opium, 1·39 lakhs from the Cooch Behār State Railway, 4·91 lakhs from the Mahārājā's estates outside Cooch Behār, and Rs. 69,000 from other sources. The receipts under the same heads in 1880 1, 1890–1, and 1900–1 were 12·95, 18·00, and 22·55 lakhs respectively. The Cooch Behār State Railway had not been constructed in the two first years.

There is very little information as to the land revenue arrangements before the State came into contact with the British in 1773. At that time revenue was collected by the State officers direct from the *jotdārs* or persons holding revenue-paying estates under the State, but in 1790 the collection of the revenue was entrusted to *ijāradārs* or farmers. The system was unsatisfactory and resulted in a great deal of oppression, and during the minority of the present Mahārājā the State was completely surveyed and settlement was made direct with the *jotdārs*; the operations were concluded in 1877, and the demand was then fixed at 9·39 lakhs. A subsequent resettlement of the State concluded in 1897 raised the demand to 12·41 lakhs, the increase being distributed over five years; the term of this settlement will expire in 1917–8. In addition, a few permanently settled estates pay an annual revenue of Rs. 7,000. A comparatively small quantity of land is held revenue-free or on service tenures. The *jotdārs* pay the State a revenue assessed according to the rates fixed for lands which have been measured and classified; their holdings are heritable and transferable, and are liable to be sold summarily for arrears of revenue. They can also be resumed by the State on the violation of the terms of the lease or for a public purpose, compensation being paid in the case of temporarily settled estates for standing crops and homesteads, while a fair and equitable price is paid or an exchange of land is made in the case of permanently settled estates. Below the *jotdārs* are several grades of under-tenures known successively as *chukānis*, *dar-chukānis*, *daradar chukānis*, *tasya-chukānis*, *tali-chukānis*, and *tasya-tali-chukānis*.

At the time of the settlement it was found that the average area of a *jot* was 37 acres, of a *chukāni* holding 7 acres, of a *dar-chukāni* 5 acres, and of a *daradar-chukāni* $3\frac{2}{3}$ acres, while the lower grade holdings averaged between $2\frac{1}{4}$ and $2\frac{2}{3}$ acres. The quantity of land held on an average by the *jotdār* and not sublet to under-tenants is 10 acres. The rates per acre for cultivated land payable by the *jotdārs* vary from Rs. 1–14 to Rs. 3 for low lands, and from 15 annas to Rs. 1–11 for high lands other than garden and homestead lands and lands on which the valuable betel-nut and tobacco crops are grown, for which special rates are fixed. The *chukāni* rates are 35 per cent. in excess of the *jot* rates; and where there are other holders below the *chukānidār*, the cultivating ryot pays a rate of 60 per cent. in excess of the *jot* rate, the profit of 25 per cent. being divided between the *chukānidār* and any other intermediate middlemen.

The administration of excise is conducted on the same principles as those adopted in British territory. The State has its own excise department, each subdivision is an excise circle, and the out-still system has been introduced. The greater portion of the excise revenue is derived from the duty and licence fees on *gānja* and hemp drugs; next in importance come the receipts from the sale of country spirit; and a considerable amount is also realized from the duty and licence fees on opium. Poppy was formerly grown and opium manufactured in the State; but in 1867 the cultivation of poppy was prohibited, on the British Government agreeing to supply opium at cost price. The cultivation of *gānja* has also been stopped, and the drug is obtained from the British District of Rājshāhi. The stamp revenue is collected under special Acts passed by the State Council. It is mainly derived from judicial documentary and court-fee stamps; copying-fee stamps and receipt stamps form a minor source of income. The stamps last mentioned have only been in use since 1903. No customs or transit dues are levied, and there is no tax on salt.

At Cooch Behār town and the subdivisional head-quarters of Dīnhāta and Mātābhānga, and at Haldībāri in the Mekhlīganj subdivision, there are town committees appointed by the State, consisting of official and non-official members in the proportion of two to one; subject to the general control of the Council, the management of all matters ordinarily entrusted to municipalities rests in the hands of these bodies. The funds administered by the town committees are derived mainly from *chaukīdāri* and latrine taxes, supplemented by State grants.

The maintenance of the Mahārājā's palace and of all public buildings and communications is in the hands of a Public Works department. The average annual outlay of the department is about $1\frac{3}{4}$ lakhs, of which about Rs. 50,000 is devoted to the maintenance of communications.

The State employs 156 sepoys and *sowārs* of all ranks for guard, orderly, and escort duties; these are under the command of the Superintendent of the State.

The State contains 7 police stations or *thānas*. The strength of the force subordinate to the Superintendent of Police consists of 2 inspectors, 11 sub-inspectors, 24 head constables, and 262 constables, in addition to a rural and municipal police numbering respectively 1,571 and 43. The annual cost of the maintenance of the force averages Rs. 53,000, and the proportion of police to population is 1 to 4,079. The jail at Cooch Behār town has accommodation for 189 prisoners, in addition to which there are lock-ups at the other subdivisional head-quarters.

Education has made considerable progress in recent years, and the number of persons able to read and write more than doubled between 1881 and 1901; in the latter year 5·9 per cent. of the population (10·7 males and 0·4 females) were returned as literate. The number of pupils under instruction increased from 10,194 in 1892–3 to 12,670 in 1901–2, in which year 26·2 per cent. of the boys and 0·36 per cent. of the girls of school-going age were at school. In 1903–4 there were altogether 12,639 pupils under instruction, and the number of educational institutions was 333, including one Arts college, 43 secondary schools, 37 night schools, and 9 girls' schools. The expenditure on education was Rs. 79,000, of which Rs. 44,000 was contributed by the State, the remainder being derived from fees and subscriptions. The principal institutions are the Victoria College and the State high school in Cooch Behār town, and eight high schools at Mātābhānga, Mekhlīganj, and Dīnhāta. The control of educational matters rests with the Superintendent, who is assisted by an inspector and deputy-inspector of schools and circle *pandits*.

The medical charge of the State is in the hands of a European Civil Surgeon, who has under him an assistant surgeon and a large staff of native doctors and compounders. The State contains (1903–4) 9 dispensaries, of which 8 have accommodation for in-patients, the most important being the hospital at Cooch Behār town with 36 beds. At all these institutions the cases of 25,000 out-patients and 1,000 in-patients were treated during the year, and 907 operations were performed. The cost of their maintenance was Rs. 34,000, all of which, except a small sum derived from the sale of medicines, was borne by the State.

The annual number of vaccinations has been slowly increasing, and 24,044 operations were performed in 1903–4; under recent legislation vaccination may be made compulsory within affected areas by notification in the State *Gazette*.

[Sir W. W. Hunter, *Statistical Account of Bengal*, vol. x (1876): Harendra Nārāyan Chaudhri, *Cooch Behār State* (Cooch Behār, 1903).]

Cooch Behār Town.—Capital of Cooch Behār State, Bengal, and the principal residence of the Mahārājā, situated in 26° 20′ N. and 89° 27′ E., on the Torsā river. Population (1901), 10,458. The town is connected by the Cooch Behār State Railway with the Eastern Bengal State Railway system. It is well laid out, and local affairs are managed by a town committee appointed by the State. The principal buildings are the Mahārājā's palace, the courts, a hospital with 36 beds, and the jail with accommodation for 189 prisoners. The Victoria College was established in 1887 and is affiliated to the Calcutta University. A State high school is also situated here.

Coompta.—Town and *tāluka* in North Kanara District, Bombay. *See* KŪMTA.

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یہ کتاب اُس تاریخ کو جو سب سے آخیر میں ڈالی گئی ہے
واپس کرنی ہے، ورنہ پانچ پیسے روزانہ کے حساب سے
ہرجانہ ادا کرنا ہوگا